

Evaluating the Quantity and Quality of Continuing Medical Education Programs from the Viewpoint of General Medical Practitioners, Ilam Province

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Abstract

Background and purpose: The purpose of this research was to evaluate the quantity and quality of continuing medical education programs from the viewpoint of general medical practitioners in Ilam province.

Methods: The research method was descriptive survey and the statistic sample was a group of 61 general medical practitioners who have been working in Ilam during 2010-2011 and were chosen by simple random sampling method. The data collection tool was a questionnaire with 50 items and reliability coefficient obtained using Cronbach's alpha which was 88%.

Results: The findings showed that there is a meaningful/significant relationship between CME (Continuing Medical Education)/retraining programs and improving GPs (General Practitioner) clinical skills with reliability of 99% and this relationship is direct and positive ($r=0.502$). It means that increasing the quality and quantity of these programs has positive effect on improving general practitioners' clinical skills. There was no meaningful/significant relationship between the method of teaching and GPs satisfaction ($r=0.160$). It means most of these practitioners were not satisfied with using training equipment, teaching methods, teachers' knowledge and manners. Also, there was no meaningful/significant relationship between teaching times and educational materials and GPs satisfaction ($r=0.73$). It shows that the rate of GPs satisfaction from teaching times and educational materials is very low and there is little coherence between them. But there was a meaningful/significant relationship between GPs job requirements and educational materials with reliability of 95% ($r=0.326$). It means presenting suitable teaching materials and content related to GPs jobs requirements led to increase GPs desire to attend educational classes. There was no meaningful/significant relationship between time dedicated to each topic and improving GPs skills ($r=0.096$). So, findings indicate that there is no coincidence between GPs topics priorities and the time allocated to each CME program. There is a meaningful/significant relationship between up-to-date programs and improving GPs clinical skills ($r=0.409$).

Conclusions: If quantity and quality of presented content be higher, it has positive effect on improving clinical skills and vice versa. All in all practitioners were not satisfied with the way of presenting topics including training equipment, teaching methods, teachers' knowledge and manners. Suitable way of presenting content related to practitioners' jobs requirements led to increase their desire to attend educational classes. The results of this study showed that there was no coherence between practitioners' priorities and allocated time to continuing medical education program. There was no significant difference.

Keywords: PROGRAMS, CONTINUING MEDICAL EDUCATION, GENERAL PRACTITIONERS

Journal of Medical Education Spring 2015; 14(2):70-77

Introduction

Although advanced industrial countries have reached to the concept of Continuing medical education system widely and have implemented it, but this concept has been found in our culture since centuries ago (1). One of the Islamic educational characteristics is its continuation. In 21st century UNESCO has emphasized on continuing medical education and it has been discussed and recognized in 27th WHO meeting in 1974 and members were asked to take this matter as a necessity in the agenda. In the past-half century paying attention to the Continuing medical education especially in Medical Sciences is very important. It has been determined that even if university educations (general and professional) be enough, they can't ensure enough skills during a practitioner's professional lifetime; because the useful lifetime of knowledge is 10 years.

Also World Federation for Medical Education emphasized on the importance of continuing medical education as a necessary tool for keeping graduates' professional skills in Universal Medical Education Conference in Edinburgh in 1993. In this conference, members declared that medical Continuing medical education should be designed in a way that they can be proportional to learners' needs in order to be helpful and relative.

It should be noticed that these needs are changeable based on the learners' responsibilities (3). Reduction of scientific information is very harmful for people who are members of medical society and for their customers (4). The numerous researches have showed that general practitioners are worried about their clinical drugs and they feel loneliness, isolation, and inadequacy during their work.

Continuing medical education of medical society has been passed in 1997 in Iran. In our country the main purpose of

implementing this rule is optimizing Health Services and attainment to efficient standards of medical and professional services based on society needs. (7) But what has been gradually neglected in this category is paying attention to quality and the purpose of implementing these programs, so that after several years of implementing this rule, the purpose and incentive of considerable part of participants is getting scores and passing legal problems rather than solving scientific and professional problems.

Continuing medical education activities can be divided into three groups: external or alive activities including educational periodic seminars, meetings, conferences, and audio-visual shows; internal activities including activities based on performance and conferences which present diseases cases, grand round, journal club, usual teaching, and consulting with specialist colleagues. Permanent educational cases include published materials, CD-ROM or internet materials.

Continuing medical education is successful if it fulfills the following goals: 1. Increase scientific knowledge, technical knowledge, and professional skills. 2. Update people's medical knowledge in order to familiarize with scientific and practical development of the practical-professional cases and adopting them to society needs 3. Familiarize with Medical Society Therapy policies, orientations, and priorities of our country and motivating them to participate in these programs. 4. Familiarize medical society with efficient standard services 5. Increase job satisfaction and improve employees' spirit 6. Decrease job accidents and losses.

In order to be successful, continuing medical education should interest people who are willing to participate then motivate and activate them to learn. Also it should preserve participants' motivation to complete the program (3). Observing some principles leads to effectiveness of continuing medical education, they are: 1. Assessing continuing medical education activity and its system 2. Respect adult trainees and their efforts. This

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topic requires effort for understanding its conditions, needs, and trying for obviating obstacles between teacher and adult trainees (8). Two decades have passed since continuing medical education started in our country and one of the ways to determine graduates' education needs is awareness of their opinion about different dimensions of professional activities. Considering that continuing medical education is very new in Iran, for reaching a scientific, dynamic, and stable system, it is necessary to answer questions and to clear ambiguities of continuing medical education in terms of research projects. This study wants to know general practitioners' point of view about quality and quantity of implemented programs of continuing medical education in Ilam province.

Research Hypothesis

- 1) There is a significant relationship between retraining programs and improving general practitioners' clinical skills.
- 2) There is a significant relationship between the method of presenting continuing education materials and general practitioners' satisfaction.
- 3) There is a significant relationship between time of presenting educational materials and general practitioners' satisfaction.
- 4) There is a significant relationship between content of materials and general practitioners' job requirements.
- 5) There is a significant relationship between dedicated time to any topic and improving general practitioners' clinical skills.
- 6) There is a significant relationship between updating content of programs and general practitioners' skills.
- 7) There is a significant relationship between general practitioners' individual characteristics and their satisfaction with continuing education programs.

Methods

The method of this study was descriptive. The sample population of this study was general practitioners participated in continuing

education in 2010-2011 in Ilam province. Participants in these programs were 80 people who were chosen by random sampling method. According to Morgan table, 66 subjects were chosen as a sample. Among qualitative characteristics of continuing education programs, following cases were considered: impact on motivating clinical skills, being up to date content of programs, way of presenting content of educational materials, time of presenting content of educational materials, and dedicated time to any subject.

The method of data collection was questionnaire. This questionnaire included four parts.

The first part was about demographic characteristics of participants like sex, age, marital status, and their work experiences.

The second part considered participants' point of view about quality and quantity of continuing education programs with 24 items and Likert scale (from "strongly agree" to "strongly disagree").

The third part had 11 items about practitioners' satisfaction of continuing education programs (from "strongly agree" to "strongly disagree").

The fourth part had 15 items about clinical skills and general practitioners' job needs with Likert scale (from "strongly agree" to "strongly disagree") which considered clinical skills and relationship between content of programs and practitioners' job needs.

General practitioners' knowledge and activities were determined in the field of continuing education and they were changed to a questionnaire during meeting of focus group with university professors and a group of practitioners. Next the reliability of questionnaire was determined. Then their points of view were used to correct and complete the questioner.

The validity of questionnaire was confirmed by professors' and general practitioners' feedback. In order to validate the study, first in a primary and pilot study, 35 samples were analyzed. The validity of questionnaire was

taken with Cronbach's Alpha which was 88 % and it was acceptable.

In order to analyze data, the scores were 1 to 5 respectively for choices of "strongly agree" to "strongly disagree". In this research Pearson correlation test was used and the level of significant relationship among variables was determined using SPSS software and multivariable variance was used for demographical samples' information.

Results

61 participants returned questionnaires. 36.1% were female and 63.9% were male. Most participants were between 25-35 years of age which shows population of practitioners are young in Ilam province. 78.7% were married and 21.3% were single and 54.1% had 2-7 years of work experience on average.

1. In one-way correlative test for considering relationship between retraining programs and clinical skills, the results of Pearson correlation coefficient shows that since $r=0.502$ is significant in $\alpha=0.01$, research hypothesis is confirmed with 99%. ($r=0.502$ sig=0 and $\alpha=0.01$ because $\alpha>\text{sig}$). In other words, there is a significant relationship between retraining programs and improving general practitioners' clinical skills and this relationship is positive and direct. It means that increasing the quality and quantity of these programs has positive effect on improving general practitioners' clinical skills and it will increase practitioners' speed in diagnosing and medicating patients in sensitive situations and will reduce their errors in performing their professional duties.

2. In one-way correlative test for considering relationship between the way of presenting continuing educational materials and practitioners' satisfaction the results of Pearson correlation coefficient shows that since $r=0.160$ is not significant in $\alpha=0.5$, research hypothesis is rejected ($r=0.16$ sig=109 and $\alpha=0.05$ because $\alpha<\text{sig}$). In other words, there is not a significant relationship between retraining programs and improving

general practitioners' clinical skills. It means in way of presenting continuing education topics, practitioners prefer group and interactive teaching methods, using training equipment and experienced professors rather than old methods like listening to professors' lectures about up-to-date medical science with low level of knowledge.

3. In one-way correlative test for considering relationship between time of presenting educational materials and general practitioners' satisfaction the results of Pearson correlation coefficient shows that since $r=0.73$ is not significant in $\alpha=0.05$, research hypothesis is rejected ($r=0.07$ sig=288 and $\alpha=0.05$ because $\alpha<\text{sig}$). In other words, there is not a significant relationship between time of presenting educational materials and general practitioners' satisfaction. It means practitioners prefer morning to evening and holidays for education programs.

4. In one-way correlative test for considering relationship between content of materials and general practitioners' job needs the results of Pearson correlation coefficient shows that because $r=0.326$ is not significant in $\alpha=0.5$, research hypothesis is confirmed with 95% reliability ($r=0.326$ sig=0.05 and $\alpha=0.05$ because $\alpha>\text{sig}$). In other words, there is a significant relationship between content of materials and general practitioners' job needs.

5. In one-way correlative test for considering relationship between dedicated time to any subject and improving general practitioners' clinical skills the results of Pearson correlation coefficient shows that because $r=0.96$ is not significant in $\alpha=0.5$, research hypothesis is rejected ($r=0.96$ sig=232 and $\alpha=0.05$ because $\alpha<\text{sig}$). In other words, there is not a significant relationship between dedicated time to any subject and improving general practitioners' clinical skills. It means they think dedicated time to any fields of diagnosis, therapy (medicate) and prevention is not enough and for improving general practitioners' clinical skills more time should be dedicated to education.

6. In one-way correlative test for considering relationship between up-to-date content of programs and improving general practitioners' skills the results of Pearson correlational coefficient shows that because $r=0.409$ is not significant in $\alpha=0.1$, research hypothesis is confirmed with 99% reliability ($r=0.409$ sig=5 and $\alpha=0.01$ because $\alpha>\text{sig}$). In other words, there is a significant relationship between up-to-date content of programs and improving general practitioners' skills and this relationship is positive and direct. It means if the content of presented programs is new and up to date, it can help increasing practitioners' skills and vice versa.

7. In considering the relationship between the samples' opinions about quality and quantity of continuing education in order of demographic characteristics, the results of variance analysis shows that there is no significant relationship between samples' opinion about the quality and quantity of continuing education in order of demographic characteristics like age, sex, marital status and work experience (F is not significant in $\alpha=0.05$).

Discussion

Continuing education in medical sciences and health is among issues that became very important in the world especially during the last few decades. It has direct impact on people's health in society. On the other hand, continuing education programs are time-consuming and expensive therefore if we can't manage these programs precisely, it can waste our assets. Regarding general goals and principles of continuing education rule and regarding passing over two decades of implementing continuing education programs in Iran, following factors can help in clarifying amount of effectiveness of programs. Polling learners' point of view about retraining programs and improving clinical skills, the way of presenting continuing education subjects, time of presenting content and educational materials, the time dedicated to any subject and

improving clinical skills, being up to date of content of programs, general practitioners' skills and individual characteristics, their satisfaction with continuing education programs.

One of the most important findings of this study is that there is a significant relationship between retraining programs and improving general practitioners' clinical skills and this relationship is direct and positive. It means if quality and quantity of programs increase it has effect on practitioners' clinical skills. According to results of this study, retraining programs cause reduction of errors in doing their duties and increasing speed in diagnosis and treating patients in unpredicted situations. Findings of this study are parallel with Safa et al. findings in 2006 under the title of "considering general practitioners' skills in Bandar Abass about continuing education programs" because they concluded that retraining program has impact on general practitioners' clinical skills. It also is parallel to Rotter and Rozibom's study which has been done (1998) (10) in Trinidad, Tobacco because they concluded that practitioners who have educated communicational skills did examination more comfortable and they had higher clinical skills than other practitioners. It also is parallel with findings of Torenball, et.al (2006) (11), because they showed that practitioners who don't obtain suitable knowledge and skill for the reason of lacking retraining programs have disturbance and don't have ability for doing effective clinical activities. Findings of this study are not parallel to findings of Cherkzi, et al. with the title of "practitioners' point of view about retraining program" because most of them had "weak" and "very weak" point of view about retraining programs and half of participants has declared that their goals of participating in these classes are obtaining points for promoting jobs and non-scientific motivations.

Practitioners were not satisfied with the way of presenting continuing education materials. They preferred the interactional methods of group teaching and using educational tools to

passive methods of lectures. To some extent, these results are parallel to obtained results in Ardabil Medical University in 2005 (13). 50.8% of nurses have assessed the way of presenting continuing education as average. They wanted that topic and the way of implementing continuing education programs to be reviewed. All too some extent findings of this study are parallel to findings of Shahabuddin in Malaysia (1990) (14). He concluded that most practitioners wanted a performance-oriented, spontaneous, and problem-solving program which emphasize on special domain of content.

The results of this study indicated that general practitioners were not satisfied with the time of presenting content and educational materials. They agreed with implementing these programs in working days and mornings. These results were coincident with findings of a study in Golestan University of Medical Sciences in 2007 (12). The results of that study showed that 44.6 percent of participants were not satisfied with planning for time of implementing continuous education. According to Shakiba, et al. in Yazd university (2003) (15), most participants said that programs and dedicated time are not enough and suitable. Also results of Mohammadi, et al. study (2005) with title of "assessing process of continuous education from nurses' point of view in Ardabil hospitals" is to some extent coincident with this study because 28.2 percent has not satisfactory about time of presenting educational classes.

Most of practitioners declared that content and educational materials in continuing education programs are related to their job needs. Findings of this study are coincident with findings of ShakorNia, et al. (2007) (16) who have considered content and dedicated time to continuing education program in Khuzestan. They concluded that coincidence of education content with learners' education needs in designing and gathering continuous education program was one of the most important consequences of this study. Also findings of this study are coincident with

findings of Nohi, et al. (2004) (17) with title of "considering coincidence of need with content of continuing education program in mind and children diseases from participants' point of view" because they concluded that for increasing impact of effectiveness of continuing education program, it is important to pay attention to coincidence of education content with learners' job and educational needs. On the other hand, findings of this study is not coincident with findings of Moosavi, et al. (2005) (18) because in a temporary study about 228 nurses who was working in Ahwaz hospitals they indicated that 80% of nurses have been educated materials in continuing education program that is not related to their working domains. Findings of this study about dedicated time to any subject and improving clinical skills have indicated that there is no significant relationship between improving clinical skills and dedicated time to continuing education program. It means they believe that time dedicated to any diagnosis domain, treatment, and prevention is not enough, so for improving clinical skills more time should be spent for practitioners. Also they thought interior and infectious diseases have priorities. For relationship between content of materials and dedicated time to continuing education of general practitioners and their job needs, findings of this study are coincident with findings of ShakorNia, et al. (2007) (6) in Khuzestan. Because they concluded that dedicated time to most titles of declared educational needs were not coincident with practitioners' job needs. According to Borji, et al. in 2000 (19) content of continuing education programs and dedicated time to them is not enough and suitable. It indicated that participants wanted to have option for choosing content of materials based on their job and indigenous needs.

Another important finding of this study is that there is a significant relationship between updating content of programs and practitioners' clinical skills. It means if the content of these educations is high and up to

date, it can help to increase practitioners' skills and this matter cause to increase innovation in treating patient, decrease time and cost of treatment and finally rescue patients. Findings of Jalali, et al. (2004) (13) to some extent is coincident with findings of the study about nurses' point of view for continuous education. Because they concluded that nurses are willing to educate because of their patients not fear of their managers. Also findings of Mohammadi and Dadkhah (2004) (13) with the title of "assessing continuing education process from nurses' point of view in Ardabil hospitals is coincident with findings of this study because 79.5 percent of nurses stated that continuing education programs lead to update information . The results of this study about demographical features (age, sex, marital status, and years of experience) show that there is no significant difference among samples in the field of quality and quantity of continuing education. Perhaps one of the main reasons is that in this study samples are young and also they are similar in these features. Findings of this study are coincident with Jafari, et al. (2008) (21). In their study under the title of "considering impact of continuing education on amount of general practitioners awareness" they concluded that there is no meaningful difference between practitioner's individual features and quality, quantity, and effectiveness of continuing education.

Conclusions

Regarding results, following cases are suggested in order to improve quality and quantity of continuing education.

Continuing education programs are designed and implemented according to general practitioners' point of view. In medical education development centers in our country, organizations and other institutions which want to be up-to-date, should design and equip new sections which have advising services for professors, implementers, and

designers of continuing education independently.

Presenting unnecessary topics and theoretical materials should be avoided, because most practitioners are elusive to theoretical lectures; they believe that it reduces motivation for participating in educational classes. Experienced teachers should not gather only in Tehran and other handful provinces. These professors should pay attention to other provinces like Ilam; therefore practitioners have motivation for participating in these classes.

The most suitable days for implementing continuing education are working days and morning. Methods of scoring programs should be reviewed. Scoring should be related to testing or observing practitioners' clinical skills in treating diseases. Professors of continuing education program in the field of teaching process should use new teaching methods; they should be knowledgeable about adult learners' features. In gathering content of continuing education programs, practical usages and diagnosis dimensions should be noticed.

Acknowledgement

We would like to thank Office of Medical Sciences and Health, Continuing Medical Education for providing the relevant information.

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