



# Assessment The Quality of Continuing Medical Education From Viewpoint of Personnel of Jahrom University of Medical Sciences 2016

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## ABSTRACT

**Introduction:** Quality of continuing medical education programs has a direct impact on the health of the community. Therefore, continuous measurement of the viewpoint of health personnel about the quality of continuing education is an undeniable necessity. This study was conducted to determine the viewpoint of personnel about the quality of continuing medical education in Jahrom University of Medical Sciences.

**Methodology:** this is a cross-sectional and analytical study. Personnel (n=254) Attendant in this study by stratified random sampling from three hospitals and different fields of studies in Jahrom University of Medical Sciences in 2016. The inclusion criteria of study included having at least one-year work experience and at least 3 times participating in continuing medical education programs. The data collected by the standard questionnaire (6 areas and 53 items questions in Likert scale from 1 to 5 through options ranging from very low to very high) as "Assessment of the quality of continuous education programs". Qualitative (by 10 professors) and quantitative (CVI: .87, CVR: .77, IS>1.5) face and content validity was evaluated and its reliability was calculated 0.75 by Cronbach's alpha. SPSS 16 used to analyze the data.

**Results:** 33.8% of personnel had positive motivation for attendees in CME and 11.9% of them were fully satisfied with quality of the program. ANOVA test showed that there is a significant difference between the quality of CME programs and the field of study (F: 8.309, Sig: .003). The mean total score of CME quality ( $1.79 \pm 0.73$ ) was low. The multivariate linear regression test with stepwise model showed that only the age and field of study can predict changes in mean score of quality by R<sup>2</sup>: 14.6% and they have effects (Beta: .177, 324) on the mean score of quality of educational programs,  $y = 1.26 + .133x$ .

**Conclusion:** quality of CME in targeting, teacher selection, implementation and evaluation is low. CME need to basic change.

**Key Words:** personnel, continuing Medical education, quality

eIJPPR 2017; 7(3):13-19

**HOW TO CITE THIS ARTICLE:** Mohsen Hojat, Mahdi Karimyar Jahromi . (2017). "Assessment The Quality of Continuing Medical Education From Viewpoint of Personnel Of Jahrom University of Medical Sciences 2016" , *International Journal of Pharmaceutical and Phytopharmacological Research*, 7(3), pp:13-19.

## INTRODUCTION

The increasing progress in science and technology has created wide changes in the provision of health services, which has led to the need for retraining in order to maintain competencies and job abilities [1, 2]. Holding the educational programs of the healthcare team provides

high

quality care, which accelerates the patient's treatment and healing process and increases the feeling of trust and confidence while providing care, followed by reduced anxiety, burn out, and job stress [1]. Too, enhance

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**Relevant conflicts of interest/financial disclosures:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

**Received:** 16 November 2016; **Revised:** 28 March 2017; **Accepted:** 10 April 2017



professional identity, professional self-concept and job satisfaction. One of the methods of human resource improvement is continuing education that improves the level of knowledge and skills of personnel. Continuing medical education in Iran, as a progressive law, approved and implemented for all medical workers in March 2006 [3]. Continuing education refers to post-graduate activities designed to enhance the knowledge, skills and professional competence of health care providers. These programs are organized to contribute maintaining and expansion of professional medical information in coordination with technology advances and developments. The ultimate goal of continuing education is to create functional and behavioral changes to improve professional activity [1]. The process of continuing education will have positive results on efficiency, self-confidence, knowledge and skills, if targeted and having the necessary organization in the implementation. Thus, continuing medical education can improve the quality of care in hospitals and quality of medical services in community [4]. Conducting continuing medical education programs in appropriate conditions with educational needs of learners, more likely affect their behavior and health of clients [5]. The findings show that the continuing medical education program implemented with current methods and conditions is slightly useful and usable. Unfortunately, despite many years of runs continuing medical education, and many efforts for its development, the results of studies are alarming [6,5]. Many studies have suggested that, it requires paying much attention to the design and implementation of programs in accordance with the needs and views of the audiences. Studies in other medical universities in Iran indicate that a part of continuing medical education programs does not meet the real needs of the target population due to the lack of attention to identifying and prioritizing the needs of learners, thus planned education has little credibility [7]. In the study of Haqqani et al. (2003), showed that quality of more than half of the continuing medical education programs were poor in educational design stage, and more than two thirds of them were very poor in educational evaluation stage. In the study by Kusha et al. (2011), 88.6% of physicians have considered the effectiveness of the continuing medical education program at moderate and low level. In the study by Mousavi et al. (2011), 43% of the personnel considered the program's success undesirable. Overall, the study conducted by Farmani et al (2011), showed that 45.5% of the participants considered the satisfaction of the general condition of continuing medical education programs at good level. In the study by Amirmia et al (2012), 62.9% of physicians had high levels of satisfaction with the quality of continuous education programs [10-8 and 5]. Regarding the status of

continuing medical education and its direct impact on health of community and the allocation of much time and money for continuing medical education programs, accurate planning of programs to prevent waste of funds and to promote the quality of the programs based on the needs of the learners is necessary. Despite the inconsistencies observed in the studies, this study conducted to evaluate the viewpoints of the medical personnel of Jahrom University of Medical Sciences on the quality of continuing medical education programs.

## METHODS

this is a cross-sectional and analytical study. Personnel (n=254) Attendant in this study by stratified random sampling from three hospitals and different fields of studies in Jahrom University of Medical Sciences in 2016. The inclusion criteria of study included having at least one-year work experience and at least 3 times participating in continuing medical education programs. The data collected by the standard questionnaire as "Assessment of the quality of continuous education programs". The first part of questionnaire includes demographic characteristics (age, gender, marital status, child, educational degree, job status (position, department, work shift, employment status), and cause of participation and number of participations in continuing medical education programs. The second part of questionnaire consists of 6 areas and 46 items. They included "goal" (6 items), "instructor" (10 items), "content" (11 items), "Educational Aids" (2 items), "implementation method" (11 items), and "outcome of programs in solving professional problems and creating motivation" (6 items). Each question was determined on a Likert scale from score 1 to 5 through options ranging from very low to very high. At the end of the questionnaire, there were four questions on the way to implement the programs, the most important applications of the programs, informing methods, and overall satisfaction with continuing medical education programs. Qualitative (by 10 professors) and qualitative (CVI:.87, CVR:.77, IS>1.5) face and content validity was evaluated and its reliability was calculated 0.75 by alpha-Cronbach. SPSS 16 used to analyze the data.

## FINDINGS

In this study, 254 medical personnel working at Jahrom University of Medical Sciences Hospitals participated. In this study, 176 (63.3%) were female, 93.7% of them had bachelor degree, 77.6% of them were working in rotating work shifts, 70.4% were employed, and only 33.8% had a positive motivation to participate in educational program (Table 1). Among them, 44.1% also reported that informing through mobile phone was better than other forms of continuing medical education informing. In



total, only 11.9% of them were fully satisfied with quality of the program. ANOVA test showed that there was a significant statistical difference between the field of study and the quality score of the continuing medical education programs (F: 8.309, Sig: .003). The total means score of continuing medical education quality from the perspective of personnel was (1.79 ± 0.73), that was evaluating in low level. The Multivariate linear Regression Test with Stepwise model showed that variables such as gender, education, managerial position, department, work shift, type of employment, cause of participation, clinical record and frequency of participation in educational programs cannot predict changes in the mean of continuing medical education quality score. Only age and field of study can predict the changes in the mean of continuing medical education quality score by R<sup>2</sup>:14.6% and they have impact respectively (Beta: .177, 324) on mean of continuing medical education quality score. Extracted model is (y = 1.26 + .133) (Table 3).

**Table 1:** Medical personnel viewpoint on the causes of participation in continuing medical education programs.

Cause of participation	frequency
managers request	97(38.2%)
Obtaining privilege	49(19.3%)
Feeling need	31(12.2%)
To update information	30(11.8%)
Providing appropriate service	25(9.8%)
Participation of colleagues	21(8.3%)
Others	1(0.4%)

**Table 2:** mean score of quality of continuing medical education programs.

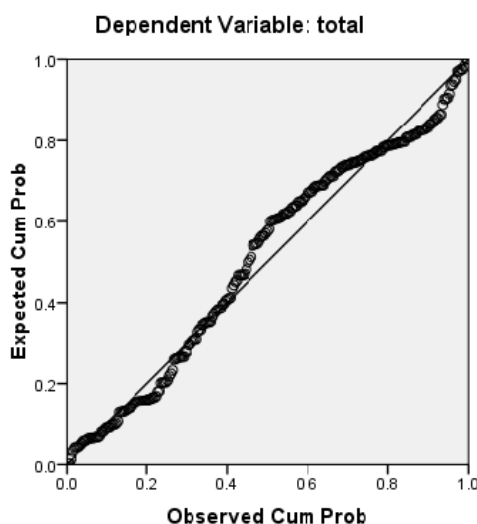
Areas	Mean ± SD
Goal	1.80±0.72
instructor	1.69±0.65
Content	1.77±0.68
Educational aids	1.78±0.88
Implementation	1.88±0.71
Solving professional problems	1.84±0.76
Total	1.79±0.73

**Table 3:** Results of multivariate linear regression test with stepwise model

Model Summary <sup>c</sup>						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
Field of study	.339 <sup>a</sup>	.115	.112	.58173		
Field of study, age	.382 <sup>b</sup>	.146	.139	.57258		
ANOVA <sup>c</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
Field of study	Regression	10.881	1	10.881	32.154	.000 <sup>a</sup>
	Residual	83.589	247	.338		
	Total	94.470	248			
age	Regression	13.818	2	6.909	21.073	.000 <sup>b</sup>
	Residual	80.652	246	.328		
	Total	94.470	248			

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	1.642	.046		35.773	.000
	Field of study	.105	.018	.339	5.670	.000
2	(Constant)	1.266	.133		9.492	.000
	Field of study	.100	.018	.324	5.469	.000
	age	.012	.004	.177	2.993	.003

**Chart 1:** p-p chart: The linear relationship between age and field of study and the mean score of quality of continuing medical education programs



## DISCUSSION

The mean total score of continuing medical education quality from the perspective of personnel ( $1.79 \pm 0.73$ ) was low. Only 11.9% of them were very satisfied from the programs. In the study that conducted by Mohammadi, 69% of participants state that the rules of continuing medical education need to reform, especially in the area of uniformity and lack of attention to the quality of the performance and knowledge of the personnel at the clinic. In a study that conducted in Karaj and Shahriar hospitals, only 45.5% evaluated the overall status of continuous education programs in good level. In Fahidi's study, only 56.8% were satisfied with provided educational programs. In the study by Kavosi, 39% of participants believed that the programs did not affect their clinical performance [5,11]. The results of Hussein Pour and Heshmati study showed that the effectiveness of continuing medical education is not desirable from nurses' point of view. In addition, in the study of Cherkazi et al, more than 50% of the participants reported their overall

satisfaction about implementation and effectiveness of continuing medical education programs in weak and very weak level. A study conducted by Charaghi et al with qualitative approach emphasized the ineffectiveness of continuing education and its inappropriateness [12]. Considering the low satisfaction of the participants in several studies, the effectiveness of continuing medical education in solving their professional problems, it can be said that this problem is inclusive and epidemic in Iran. Evaluation of educational courses should be performing with the aim of reviewing and modifying the programs. Plan implementing from need assessment to evaluation must be assess regularly. The evaluation results of the program should also be presented (feedback) to the executives and instructors.

A study conducted in Malaysia indicated that continuing education programs are not based on the real needs of the participants, and these had little effect [13]. In addition, a study in Thai public hospitals revealed that the quality of

continuing education of personnel was in low level and issues such as lack of strong speakers, lack of financial resources, and inappropriate educational planning expressed as the major problems [14]. Another study in Saudi hospitals showed that the status of continuing education was inadequate [15]. A review study in the United Kingdom also showed that continuing education has been completely disrupted. It is inappropriate, and requires to a fundamental change [16]. The international study by Peck also emphasizes the need to improve planning in continuing educational programs as a major problem for healthcare systems [17].

The findings of the study showed that one of the problems in the field of planning is inappropriate targeting due to inadequacy of needs assessment. This challenge would reduce the satisfaction of the provided educational content and reduce the effectiveness of the educational program. In the study by Mohammadi in Ardebil, 59.8% of personnel stated that the educational needs of the personnel are not related to the topic of the conference. In a study conducted in Ahvaz by Mousavi, 80% of personnel stated the educational contents were not relevant to their practical needs. In the study conducted by Kavosi, Memarian and Vanaki in Tehran, it stated that 67% of personnel believed that educational executives did not evaluate their real educational needs. In the study conducted by Ebadi in a systematic review method, these results confirmed. Based on multiple references, educational need assessment and educational targeting are the most important stage of organizational education planning, so that it can be said that the starting point or deviation of educational effectiveness is need assessment and educational targeting [18]. By examining these studies, it seems that continuous education programs are not designed and implemented based on appropriate educational planning models.

In this study, only 33.8% of participants stated that their motivation providing proper service, updating of information and the need for education, and 66.2% of them stated force, earning privilege, and other negative causes as their motivation to attend educational programs. Some studies also highlighted the motivation of personnel to participate in educational programs higher than 80% [19]. Motivation in education plays a very important role in the creation and survival of learning, so negative motivations can affect effectiveness of each education plan with any quality. Nevertheless, some researchers believe that attending educational programs with any reason and with any motivation can cause behavioral changes, enhance performance, and create learning in the personnel [20].

## CONCLUSION

The need for change in the planning of continuing education programs is necessary. The low quality of continuing education programs in the targeting, instructor selection, implementation and evaluation are national and international challenges in continuing medical education, and appropriate revolution plan should be design and implement.

## ACKNOWLEDGEMENT

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