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Delivering Effective Continuous Medical Education in Saudi Arabia: Some Critical Issues

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Abstract

Purpose: Continuous Medical Education (CME) is growing fast in Saudi Arabia as part of health practitioner's commitment to professionalism. It furnishes the means to maintain the practitioner's ability to provide quality and safe patient care. However, major issues regarding the process of conducting CME in the country have not been investigated before. The purpose of this study is to describe the CME practice in Saudi Arabia.

Method: The method utilized in this qualitative study was focus groups. Leaders of CME departments in various hospitals in Riyadh area participated in the study. Hospitals were categorized to different levels according to their governing systems.

Results: In total 17 representatives of various CME bodies responded to 16 questions related to four main themes. Their responses varied according to several factors. The results provided new and insightful understanding of CME practice in Saudi Arabia.

Conclusion: The CME practice in Saudi is facing several challenges at both financial and administrative levels. Suggestions for facing such challenges were provided. Moreover, further studies in this area are needed.

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Keywords: Continuous Medical Education; Saudi Arabia; Focus group

1. Introduction

Knowledge and skills are dynamically changing and expanding in the medical profession. Therefore, continuous learning and development is essential to ensure quality health care corresponding to the latest trends and cutting-edge technologies. The use of Continuous

Medical Education (CME) is a sound approach to achieve such a development. The first conference on medical education held by the College of General Practice of Canada in Toronto in the fall of 1962 produced the following consensus: "Continuing Medical Education is an essential feature of the practice of modern medicine, as it maintains the doctor's ability to provide quality patient-care. This concept of 'life-long learning' must be actively developed in the undergraduate medical student and sustained in the graduate doctor, both practitioner and teacher".¹ The Accrediting Council of Continuous Medical Education (ACCME) defines CME as the "Educational activities which serve

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to maintain, develop, or increase the knowledge, skills, and professional performance and relationships that a physician uses to provide services for patients, the public, or the profession".²

In most countries, accredited CME activities are measured in credit hours. These activities can be divided into three main categories: 1) organized by national or regional professional bodies (e.g. courses, seminars, conferences, meetings); 2) organized in the context of the work place (e.g. practice-based activities, case conference, grand rounds, journal clubs, teaching, consultation with peers/colleagues); and 3) based on electronic materials provided by various bodies (e.g. CD ROM, web-based materials).³

Establishing an effective CME activity requires careful planning and design. A number of factors determine the design of CME activities. These factors can be divided into macro-level and micro-level forces.⁴ Broad macro-level factors are the social and regulatory environment, health care setting, culture of education and improvement, funding, accreditation requirements, credit hours regulations, etc. Equally important are the micro-level forces including the willingness of the individual learner to engage him- or herself in CME, the attitudes of team members towards CME, time management, amount of professionalism, etc.

The process of designing CME activities commonly goes through different stages, starting with the assessment of needs and ending with outcome evaluation. The two common methods of assessing needs are (1) assessment in which the focus is on the services that are being used and (2) survey assessment where practitioners identify their perceived educational needs.⁵

Although CME is growing in Saudi Arabia, it has not been studied in detail. The aim of this paper is to provide a baseline understanding of CME practice in Saudi Arabia. Particularly, it will describe CME practice in Saudi Arabia, as viewed and discussed by directors of CME departments. This might help in obtaining the needed insight on CME in Saudi Arabia with the aim of improving it.

1.1. CME in Saudi Arabia

CME practices in Saudi Arabia are not different from international trends related to CME. Historically, Saudi Arabia had no mandatory system of professional registration until 1995, when it imposed an accreditation system that counts CME activities for the purpose of licensing and re-licensing. The regulatory body for registration and licensing health professionals and all related Medical Education programs in Saudi Arabia,

Table 1

Numbers of accredited educational activities and continuous education hours in Saudi Arabia for the period from 2002 to 2010.⁶

Years	Number of activities	CME hours*
2002	1036	–
2003	1688	–
2004	1991	–
2005	1963	–
2006	2357	–
2007	1211	–
2008	2358	–
2009	3381	26,726
2010	5601	41,735
Total	22,086	68,371

*The system for registering CME hours was not implemented until 2009.

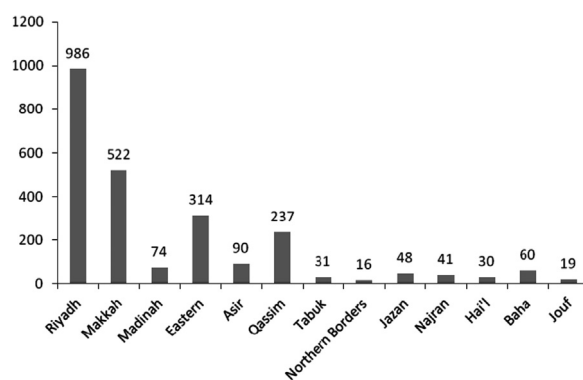


Fig. 1. Accredited CME activities per regions in 2008.⁶

including CME, is the Saudi Commission for Health Profession (SCHS). Since establishing the accreditation regulations, there has been a strong and steady increase in the number of accredited CME programs in the country. For example, the Saudi Commission for Health Specialties approved 1036 CME activities in the year 2002, compared to 5601 CME activities in 2010.⁶ Table 1 shows the number of approved activities by the Commission during the years 2002 until 2010.

The SCHS rarely rejects a submitted proposal for CME approval. For example, in 2010, it rejected less than 1% of applications.⁶ However, little is known about trends, barriers, main tools used, educational strategies, and effectiveness of CME activities in Saudi Arabia. We do know however that calls for better CME in Saudi Arabia have been published over the last 10 years.^{7–9}

For example, Al-Shehri et al.⁹ suggested that there is no evidence CME is subjected to quality assurance measures. Location might also be an issue. Most CME activities are provided in large cities where large

Table 2

Participants of the focus group where *n* is number of participated per group.

Group (<i>n</i>)	Name of participants
Large referral hospitals (5)	King Faisal Specialist Hospital & Research Center
	King Abdulaziz Medical City
	King Fahad Medical City
	Riyadh Military Hospital
	King Khaled Eye Specialist Hospital
Ministry of Health hospitals (5)	Al Amal Hospital for Mental Health
	Al Yamamah Hospital
	King Saud Medical City
	Nakkaha Hospital
	King Khaled Hospital, Al Kharj
Private hospitals (5)	Saudi German Hospital
	Specialist Hospital
	Dallah Hospital
	Al Hamadi Hospital
	Al Mamlaka Hospital
Regulatory bodies (2)	Saudi Commission for Health Specialties
	Directorate of Training and Scholarship, MOH

healthcare facilities are present. Fig. 1 presents accredited CME by the SCHS over one year at different regions in Saudi Arabia.⁶

CME in Saudi faces challenges in relation to its effectiveness and quality.⁸ The most common challenges facing CME activities are: the weak relationship between educational activities and work practice; difficulty in maintaining collaboration between multiple providers of CME; the availability of resources; and the apparent inability of CME to achieve change in physician behavior.⁸ Al-Shehri et al. estimated that potentially over 8000 CME programs are provided annually in one city in Saudi Arabia. However, hardly any of all these programs engaged in quality management focusing on outcomes.⁹ In addition, changes in theoretical and practical perspectives have taken place at the undergraduate level, leading to new approaches to medical education, such as PBL, community orientation, or horizontal and vertical integration among the basic and the clinical sciences. These changes in undergraduate medical education have translated into CME only to a limited extent. Mansoor suggests that despite theoretical shifts in thinking and the rise in the importance of evidence-based medicine, traditional styles of expert-led teaching still prevail in postgraduate CME in Saudi Arabia.¹⁰

The SCHS approved four centers to provide electronic CME in the country. In 2010, those centers provided 84

CME hours.⁶ This is a clear indication that electronic CME is not a common practice in Saudi Arabia. However, this is not to preclude that practitioners in Saudi could benefit from various international electronic CME presented through the web.

The purpose of the study presented here was to clarify the points of view of those involved in CME activities in Saudi Arabia with regards to four issues: (1) the role of departments of CME and their relationship with overseeing administrative bodies, (2) the extent and nature of assessment of needs and outcomes of CME, (3) sponsorship of CME, and (4) the introduction of new educational approaches to CME. To that end 16 questions related to these themes were discussed using a focus group methodology involving 17 representatives of various CME bodies. The practice of CME in Saudi Arabia has not been described before. Leaders of different CME departments in different hospitals may be the best sources to arrive at such first description.

2. Method

2.1. Participants

Invitations were sent to 25 major hospitals in Riyadh, and 17 representatives of hospitals, the SCHS, and the Ministry of Health Directorate of Training attended the focus group discussion. Table 2 presents the distribution of participants in the focus group. The sample was limited to the city of Riyadh since 31 of accredited CME centers (52.5% of the whole country's centers) are located in Riyadh, the number of activities of which is shown in Fig. 1.⁶ Participants in the discussion were directors or chairpersons of continuing education department in different hospitals.

2.2. Procedure

A focus group methodology was utilized in collecting the data. Prior to conducting the actual focus group, research team members and two other experts from departments of medical education met to choose the themes of the focus group as well as the best way to divide the participants into groups. The most pressing themes that emerged were: role of CME department and its relation with others, assessment of needs and outcomes, sponsorship of CME activity, new trends in CME (professional development, electronic CME, etc.). Table 3 shows themes of the study and their leading questions.

Since the practice scope was different among the participating hospitals, they were divided into three

Table 3

Themes for focus groups discussion and main questions.

Theme	Leading questions for the theme
1 Role of CME department and its relation with others	How do you process your CME? What kind of approvals do you need and from whom? Describe your administrative relationship with other departments in your organization?
2 Assessment of needs and outcomes	What is your relationship with the accreditation bodies? How do you choose your CME activity? What is the methodology that you use to approve the CME activity, its scientific program and speakers?
3 Sponsorship of CME activity	Do you evaluate the CME outcomes? If so, how? Who sponsors your CME? How do you communicate with sponsors?
4 New trends in CME (Professional development, electronic CME, etc.)	Do you have clear ethical guidelines for sponsorship of CME? Do you link your CME to certain career pathways? Are you aware of continuous professional development and how it differs from CME? Do you subscribe to electronic CME? If so, how? Do you broadcast your CME? Do you count on electronic CME?

groups: a) large referral hospitals. These are large hospitals that run through self-operating programs, active in CME, where each one organized more than 100 CME activities per year; b) Ministry of Health (MOH) hospitals. These are general hospitals that run by Ministry of Health directly, and not active in organizing CME activities compared with large referral hospitals; and c) private hospitals. These are hospitals administered and owned by the private sector. Representatives of SCHS and the MOH Directorate of Training also participated in final discussions to explain the related general regulation.

A facilitator, member of the research team, was assigned to each group and her or his role was to provide guidance whenever the group deviated from the main theme. Each theme was discussed within each group for approximately 20 min. Subsequently, general discussion of each theme took place for about 10 min, during which a representative from each group presented the conclusions of the particular group's discussion to all participants. All participants then had the chance to comment on the presentation of each group. The facilitators recorded all discussion outcomes, and the main investigator facilitated the general discussion. Later on, the research team met to review and summarize all results and outcomes. Results were presented according to the discussion themes.

The group discussion took place at King Saud University for Health Sciences. Refreshments were offered during group activities. Participation in the study was voluntary, without any compensation.

Participants were assured that all given information will only be used for research purposes and in accordance with the ethical guidelines, where no specific personal or institutional information would be released.

The study was approved by Research Ethical Board of King Abdullah International Research Center (Grant RC 09/050).

3. Results and discussion

3.1. The role of CME Department and relationship with others

Not all hospitals have a department by the name "Continuous Medical Education Department". Most of the governmental hospitals have their Continuous Education Department or units as part of a larger department called Academic Affairs or Training Department. Academic Affairs supervises a wide range of activities such as scholarship programs, residency training, the library, and CME. Private hospitals are not focusing on continuing training and tend to have it as part of their commercial or promotional departments. Academic Affairs in almost all hospitals are directed by practicing physicians, rather than educationists. Their roles in terms of CME are to focus on organizing the designated activities. Organization CME activity includes reservation and preparation of the activity site, obtaining the accreditation from SCHS, preparing promotional materials such as posters and banners,

arranging the travel visa and accommodation for speakers (if needed), preparing bags or files for participants, arranging meals, registering participants for the activity, organizing the opening ceremony, delivering the certificates of participation, and other related duties. The most critical part of organizing, as agreed by most participants, is the quality of the opening ceremony. This includes the level of honor of the guests and the extent of media coverage for such events.

Large referral hospitals take their own decisions in selecting and organizing CME, while MOH hospitals do not have such a privilege, since they need the approval of the MOH for all their activities. Moreover, MOH hospitals do not have an appropriate allocated budget for CME. Most CME activities in the Ministry of Health are run through the Directorate of Training at the Ministry or through the Directorate of Health Affairs at different regions.

A major struggle for CME departments is the ability to attract commercial support for the activity through medical and pharmaceutical companies. This will be addressed under its own specific title.

3.2. Assessment of needs

The term “assessment of needs” seemed to be vague for some of the participants. Therefore, it was explained through a simple question: “How do you choose the CME activity?” The participants agreed that the best practice was used by large referral hospitals. In these hospitals, a particular medical department submits a request for organizing the CME activity (workshop, symposium, course or conference) to the CME Department. Then, through a special CME committee, applications are reviewed to decide whether or not the activity should be included in the CME annual calendar, followed by final approval of higher management. These processes involve negotiation and lobbying by the department concerned. This includes the ability of getting the support of higher management. Such support influences the decision of the CME committee. The committee's major criteria for selecting the activity are the importance of the activity and the ability to cover its cost through commercial sponsors or the hospital budget. In the concluding discussion of this topic, participants agreed that scientific methods for needs assessment of CME are generally lacking.

3.3. Outcome evaluation

Outcome evaluation of CME activities was explained to participants as the process of evaluating knowledge, skills, and attitudes gained from these activities, either immediate or long-term. In terms of immediate evaluation, only a few courses, such as life support, and some nursing or certificate courses have an exam at the end. The regulatory bodies (SCHS) do not impose an examination process for CME. Thus, most CME activities only provide attendance certificates for participants. In addition, participants agreed on the fact that they do not have a system of evaluating long-term outcomes of CME among their participants. On the other hand, most CME departments conduct a survey at the end of each activity that provides feedback on the quality of the organization. The feedback helps in monitoring the quality of the departmental activities. The resulting statistics are sometimes used as justification for re-organizing the activity in a subsequent year. This is of course not the kind of outcome assessment that illuminates the benefit of CME for individuals and organizations. Finishing the activity and closing its related financial report usually terminates the relationship between the CME department and the initiating department. It was agreed that conducting extensive assessments of needs and outcomes is important, but beyond the capacity of most organizations.

3.4. Sponsorship of CME

There are several models of sponsoring CME activities in Saudi hospitals. The first is allocating budget for it as part of the hospital budget. In general, each hospital has a certain budget for training and developing human resources. However, most institutions allocate such budget for sponsoring scholarships and training programs for their staff locally and internationally. This includes sponsoring their staff, especially consultants, to attend local and international scientific meetings (e.g. professional leaves, business leaves, educational leaves, etc.). Organizing CME activities, such as conferences, workshops, symposia and courses, is considered by most hospitals as money-generating activities per se. Thus, these activities depend on commercial sponsorship and registration fees to cover costs and generate extra income for the institution. Attracting medical, pharmaceutical, and

construction companies to sponsor CME activity depends mostly on personal contacts by members of the department concerned. Usually, the attracted sponsors are those who have business links with the institution or the profession generally. In other words, sponsors are willing to support CME for the sake of improving business relationships with the department, institution, or doctors. Significantly, participants agreed that there is no clear policy to identify ethical conflicts in such practice. Moreover, they indicated an even more dangerous style of sponsoring CME in which individuals such as consultants and heads of departments are sponsored to attend CME activities as a result of personal contacts with a sponsor and without the approval of their institution.

The government's financial regulations force all governmental institutions to deposit any revenue to the Ministry of Finance account. This practice does not motivate government hospitals such as MOH hospitals to engage in organizing CME activity. Large referral hospitals are able to pass over these regulations by depositing CME revenue to special accounts or funds that are however not necessarily identified as an educational account. Instead, they might be part of other accounts, such as the business center or social club accounts. These accounts give the hospital flexibility in utilizing outside resources without the typical government restrictions. It seems that this practice motivates large referral hospitals to be more active in CME compared with other institutions. MOH hospitals lack this flexibility, since most do not have such special accounts. Private hospitals' engagement in CME is minimal and mostly dependent on commercial vendors' supports.

3.5. *New educational trends in CME*

Participants were asked about the new educational trends in CME, such as adopting continuous professional development (CPD) rather than just simple CME and using new technology, e.g., e-learning, in delivering CME. The concept of continuous professional development was explained to participants as linking CME to certain career pathways based on the mastery of certain professional competencies. The concept is emerging slowly in some hospitals and professions. For example, nursing education departments at large referral hospitals are conducting mandatory courses related to their profession as prerequisites for promotion and re-licensing. SCHS has started mandating common courses, such as life support courses, as prerequisites for licensing and re-licensing all healthcare

professionals. Moving toward CPD depends on the maturity of the profession and of educators in that profession, as indicated by directors of CME departments.

Regarding the incorporation of new technology, some hospitals utilize it for registration, administrative, and financial issues, as these hospitals shift to make their medical and management systems electronic. Two large referral hospitals utilize teleconferencing technology to transmit their courses to different regions. No other major e-learning activities seems to be taking place at the CME level, such as organizing web courses, distant learning courses, web exams, or web assessment of needs or outcomes. The SCHS has started recognizing and accrediting electronic CME, thus it is expected to see it emerging more in the near future.

3.6. *Regulation and accreditation*

The SCHS is the only accrediting body for CME activity in Saudi Arabia. The accreditation includes reviewing and approving CME and its credit hours. The approval takes place prior to conducting the CME activity. However, the SCHS has no role in observing the quality of CME or its outcome. Participants agreed that linking CME hours to the process of licensing of health professionals has encouraged more participants in CME. Moreover, SCHS guidelines and regulations are not focusing on the issues of needs assessment, possible conflict of interests involving sponsors, linking CME to professional development, etc. Representatives of the SCHS acknowledged such critique of their roles and pointed out that the SCHS is a newly established agency that is in the process of building its experience in this field.

4. **Conclusions and recommendations**

The purpose of this study was to describe the practice of CME in Saudi Arabia. Interests of Saudi hospitals in organizing CME have increased dramatically during the last few years. The CME methodology has shown improvement in many areas. However, further progress is needed, especially in terms of following rigorous scientific approaches in assessing needs and outcomes. In addition, policies for addressing ethical factors such as conflicts involving CME sponsorship must be developed by departments of CME in collaboration with the SCHS.

This study described CME practices in Saudi Arabia and pointed out major concerns related to it. The study

explored only the views of directors of CME departments. Further studies are recommended to explore opinions of beneficiaries and decision makers in this field. Specifically, there is a need to explore the opinions of attendances of CME activities in terms of CME effectiveness, sponsoring, etc. Moreover, there is a need to explore the relation between health professions, background education and experiences; and participation in CME activities. Such studies will complement the current study in developing policies and practice of CME in Saudi Arabia. The authors of this study are currently involved in future studies to explore such issues.

References

- 1.. Marinopoulos SS, Dorman T, Ratanawongsa, N, et al. Effectiveness of continuing medical education. *Evid Rep Technol Assess* 2007;149:1469–1491.
- 2.. Education, A. C. f. C. M. *Definition of CME*. Available, April 2011, from (http://www.accme.org/index.cfm/fa/Policy.policy/Policy_id/16f1c694-d03b-4241-bd1a-44b2d072dc5e.cfm).
3. Peck C, McCall M, McLaren B, Rotem T. Continuing medical education and continuing professional development: international comparison. *BMJ* 2000;320(7232):432–435.
4. Davis D, Bordage G, Moores, LK, et al. The science of continuing medical education: terms, tools, and gaps: effectiveness of continuing medical education: American College of Chest Physicians evidence-based educational guidelines. *Chest* 2009;135(3 suppl): 8S–16S <http://dx.doi.org/10.1378/chest.08-2513>.
- 5.. Hoyal F. Skills and topics in continuing medical education for rural doctors. *J Contin Educ Health Prof* 2000;20(1):13–19.
6. Saudi Commission for Health Specialties. *2011 Annual report of Saudi Commission for Health Specialties*. Available, April 2012, from (<http://www.scfhs.org.sa/Pages/default.aspx>).
- 7.. Bin Saeed KS, Sebai ZM. The need for continuing medical education in the Kingdom of Saudi Arabia. *Ann Saudi Med* 1998;18(2):140–145.
- 8.. Al-Shehri AM, Al-Haqwi AI, Al-Ghamdi AS, Al-Turki SA. Challenges facing continuing medical education and the Saudi Council for Health Specialties. *Saudi Med J* 2001;22(1):3–5.
- 9.. Al-Shehri AM, Alhaqwi AI, Al-Sultan MA. Quality issues in continuing medical education in Saudi Arabia. *Ann Saudi Med* 2008;28(5):378–381.
- 10.. Mansoor I. Modern aspects of continuous medical education. [Review]. *Saudi Med J* 2002;23(7):769–772.