Challenges of Continuing Medical Education in Saudi Arabia's hospitals

Awatif M. Alghamdi

BSc Health SER ADM. MSc Ed. D

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School of Medical Sciences Education Development

Declaration

I, Awatif Alghamdi, declare that '**Challenges of Continuing Medical Education in Saudi Arabia's hospitals'** is my own work and that all the sources that used or quoted have been acknowledged by means of complete references and that this study has not been submitted before for any other degree at any other organization.

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Abstract

Background

Health care professionals are responsible for maintaining their proficiency throughout their careers. Continuing medical education (CME) is an integral part of the medical profession that aims to enhance physicians' knowledge and skills.

Health care services in Saudi Arabia are expanding rapidly. However, the country is struggling to cope with a shortage of competent health professionals. CME in the Kingdom is facing some challenges that are preventing learning programmes from responding appropriately to professionals' demands and needs, and to the complexity of health care.

Research questions

The research questions addressed in this thesis are:

1. What is the current status of continuing medical education in Saudi Arabian governmental hospitals?
2. What are the barriers preventing continuing medical education from implementing competitive learning programmes?
3. How might Saudi culture be influencing the health context and how does this impact upon the field of CME?

Methodology

This study adopted a mixed methods approach supplemented by ethnography. Two forms of individual, semi-structured interviews targeted two groups of respondents; the interviews were followed up by a questionnaire (sent by email) listing all the challenges to CME identified by the interviewees, and asking the participants to rank

them in order of importance. In addition, observation was conducted throughout the fieldwork.

Sampling

Three public hospitals were selected from different geographical areas (N=3).

Judgemental approach resulted in the selection of 33 medical education representatives from different medical and paramedical departments (N=33).

Purposive sampling resulted in the selection of 11 medical librarians (N=11).

Results

The major CME challenges were identified and grouped into four themes:

1. Management, including the lack of knowledge on the part of decision makers about the importance of lifelong learning, and their influence over learning programmes.

2. Poor status of medical libraries, in terms of location, space and services provided.

3. Lack of transparency in the CME budget, which leads to a too close relationship between the pharmaceutical industry and physicians.

4. Diversity of staff, including their different training backgrounds, and their resistance to making changes in their performance after training.

Discussion and conclusions

The study found a strong correlation between health stakeholders' lack of managerial skills and knowledge of the significance of CME and the learning programme limitations in Saudi Arabia; this factor also received the highest ranking by the participants in the study.

Hospital officials lack the necessary knowledge about the importance of CME, and lifelong learning has become complex. Their negative attitude towards learning has resulted in several challenges: some of these have been identified in this study, including a lack of support for the learning process in hospitals, an inability to motivate staff to continue developing their skills, and a lack of transparency when allocating budgets to learning elements, including CME and library services. This ambiguity has resulted in poor libraries and a heavy reliance on pharmaceutical industry sponsorship for CME events and medical professionals' trips, which can affect the quality of the events and/or cause bias.

The study has also clarified the issue of staff diversity. Although the majority of health care professionals are foreigners, the concern is that health care stakeholders are recruiting professionals from developing countries where the quality of health care and training might be low. Despite the varied training and educational backgrounds among the staff, no efforts have been made to design learning programmes that meet their actual and wide-ranging needs. Rather, current activities are based on desires and wishes of chiefs of medical departments.

Chapter 1 Orientation to the Study

Introduction

This chapter serves two purposes. Firstly, it contextualises the study within the cultural setting of Saudi Arabia where the data were collected. Secondly, it provides an outline of the structure of this thesis, giving a short summary of each chapter.

1.1 Setting the scene

This study is set within the health care system of Saudi Arabia and explores the challenges currently confronting continuing medical education in the Kingdom. Before reviewing the literature on the subject, describing the methodology of the study and presenting the results of the research, however, it is necessary to situate the study in its context, taking into account the unique social, cultural and organisational traditions, attitudes and beliefs of Saudi Arabia. In order to do this, I will start by providing some background details on health care in Saudi Arabia and on my own experiences of working in that sector.

Saudi Arabia is a relatively young country, having been created in 1932, and is ruled by a monarchy; the discovery of oil in 1938 transformed the Kingdom into a modern country. The Kingdom has invested heavily in health care provision, and as a result, health care services are expanding rapidly. However, a number of underlying factors appear to impeding the development of the Saudi health sector. One of the major factors the country is struggling to cope with is the shortage of competent health professionals.

Continuing Medical Education (CME) is vital for the development of health professionals and has now become mandatory worldwide to cope with constantly changing health care systems. Nevertheless, in Saudi Arabian hospitals, CME is encountering some challenges that are preventing learning programmes from

responding appropriately to the needs of health care professionals, and to the complexity of world health care delivery.

This research was informed by my background as a Saudi national and my academic background of a BSc in Health Services Administration (from a Saudi Arabian university) and an MSc in Science of Medical Education (from a university in the United States). Since 2000, I have worked in hospitals, and in education and training departments particularly, and have gained experience from working in three different hospitals (general, military and specialist), before joining the PhD programme in September 2007.

During that time, I worked as a specialist in CME with the responsibility of cooperating with medical departments to plan and manage national and international medical activities as a means of enhancing the quality of health care. I had long-term complete immersion in the regular practices of the field as a whole, working with medical chiefs, professional health care staff, and education representatives to organise the scientific aspect of medical activities, as well with hospital administrative personnel to arrange financial and administrative issues. I was given the responsibility of supervising the overall running of events and of providing feedback by way of an after-activity report.

The responsibility of working with both hospital administration and medical departments helped in improving my communication skills and in establishing respectful relationships between hospital staff and me. The work also enabled me to acquire expertise in planning medical activities and in cooperating with departments, as well as exposing me to difficulties encountered by the education programme, which consequently enabled me to understand the work and learning environment.

This chapter provides a brief introduction to the current status of continuing medical education (CME) in Saudi Arabian hospitals; the significance of the study and the

main research questions; the methodology used for the research, and the content of the chapters of the thesis.

1.2 Worthiness of the study

The KSA government has given an enormous amount of financial support to health care provision over the last four decades (expenditure on health care is discussed in chapter 3). In order to obtain maximum benefit from budget expenditure, health executives place particular emphasis on improving health care professionals' efficiency by raising labour productivity through training and through implementing compulsory learning programmes in hospitals. Despite this input of money and effort, as mentioned above, continuing medical education is encountering some serious obstacles to moving forward, and the inability to develop professional knowledge and skills and to keep up to date with world trends has become a major concern.

My interest in this area arose from the dissatisfaction expressed by health professionals with the current CME, which they feel often does not come up to their expectations and requirements. Hence, I identified a need for a more objective and systematic way to reveal exactly what is happening in the context of the learning programmes and to examine factors that are typically constraining CME in the hospital context.

A great deal of research has been conducted into factors that are viewed as contributing to the failure of health care services in the developing countries. One of the factors that has been identified is a failure to acknowledge the existing indigenous culture, despite the fact that culture has a big impact on health systems (Parfitt, 1994). According to Fetterman (1989), culture is the behaviour, traditions and daily life of a specific group of people. Saudi Arabia is deeply rooted in its cultural traditions. Clan identities and kin-based tribal relations are related to the Bedouin traditions and create strong bonds among Saudi citizens. Despite

modernisation and industrialisation, the Saudi national heritage has a significant influence on all aspects of the everyday life of the people; including education and work.

Saudi health professionals represent the dominant Saudi culture and so carry the values and beliefs of that culture with them into health contexts. The culture has reinforced certain behavioural habits and actions that appear in their practice. The key factor is the dependency relationships that occur in the social environment and services at the hospitals. Despite this situation, cultural considerations among the health workforce are often neglected and overlooked, and to date, only a very few ethnographic studies have been conducted on the Saudi health workforce and by Western researchers.

1.3 Objectives of the research project

The research questions underwent several changes throughout the course of this study. This is often the case when using qualitative research methods, because as more information is collected, the questions and aims of the research change (Simpson, 2002). The overall purpose of this study was to identify factors impeding high achievement within the continuing medical education field. The study focused on accredited and formal CME activities such as lectures, conferences, symposia, workshops and seminars.

The research questions that this thesis addressed were:

1. What is the current status of continuing medical education in Saudi Arabian governmental hospitals?
2. What are the barriers preventing continuing medical education from implementing competitive learning programmes?
3. How might Saudi culture influence the health context and how does this impact upon the field of CME?

1.4 Overview of the methodologies

The use of mixed methods is increasing exponentially across most, if not all, fields of research in the health disciplines (Forthofer, 2003) and in organisational and management research (Currall & Towler, 2003). The problems being encountered by CME were explored using a mixed methods approach. A mixed methods study utilises several strategies for collecting data, but typically it relies on interviews, observation and survey questionnaires (Creswell, 2007; Hammersley & Atkinson, 2007). Between 2008 and 2009, various phases of data collection were carried out, using semi- structured interviews, questionnaires and fieldwork methods, with a group of thirty-three education representatives and eleven librarians. Individual interviews were first conducted followed by a survey questionnaire with selected informants to ascertain their opinions of the current CME. The study was drawn upon ethnography; I thus gained access to the behaviour and actions of this group through observation. During that time, I strove to explore the work environment and to understand the behaviour and actions of the group. According to Wolcott (1999), researchers cannot observe culture directly; rather, it can be seen in the form of norms, customs or patterns of believing, and in the behaviour and actions of individuals. Also, observational data detailing the professionals' views towards medical meetings, their opinions about learning resources in their hospitals, and the manner in which they interacted with each other were also recorded. Additionally, my role as an education specialist was relevant as it stimulated interaction and participation.

Theoretical perspective was generated during the observation and the inductive analysis. Ethnography was imperative in order to generate understanding of the complexity of Saudi society and its influences on the professional development of health workers. Wolcott (1999) asserts that recognising cultural interpretation is the essence of ethnography as it enhances the understanding of the problem under investigation. The concept of ethnography has been discussed for many years. The

literature provides an array of definitions as well as a variety of concepts. Similarities within these definitions suggest that ethnography is the study of a particular cultural group in a naturally occurring setting over a longitudinal period, utilising fieldwork to collect information (De Laine, 1997; Brewer, 2004; Hammersley & Atkinson, 2007). Furthermore, according to Fetterman (1989: 9), "ethnography is more than a one day hike through the wood: it is an ambitious journal through the complex world of social interaction". Ethnographic principles also suggest that the longer the ethnographer stays in the setting developing relationships, the more opportunities the researcher will have to investigate and understand the "sacred subtle elements of the culture: how they pray, how they feel about each other and how they reinforce their own cultural practices to maintain the integrity of their system" (Fetterman, 1989: 27).

This study includes information collected from both emic (insider) and etic (outsider) perspectives (explained in chapter 6), since the "success or failure of ethnography depends on the degree to which it rings true to natives and colleagues in the fields" (Fetterman, 1989: 21). The techniques used in ethnography mean that I needed to gain authorised access to the group and their activities and establish a close relationship with the setting (Brewer, 2004). The researcher in this case is a Saudi female, who is aware of and able to assess Saudi culture, as well as the influence of the prevailing culture on regular life, work and education, and the sensitivity of Saudi people toward their culture. Living and also working for a prolonged period in the native culture enabled the researcher to comprehend subtle elements of that culture, the power of dominant opinions, and patterns of beliefs and behaviour in the people.

Triangulation was used in this study to examine different aspects of the same phenomena and to enhance the accuracy of findings by examining them from different perspectives. According to Fetterman (1989), triangulation is "the heart of ethnographic validity" (p: 89).

1.5 Overview of the thesis

The overall plan and structure of the project, research questions and research purpose have been summarised in this chapter (**chapter 1)**.

Chapter 2 - Review of the literature on CME

CME is a fundamental learning process that forms an integral aspect of the medical profession worldwide; the chapter discusses several issues that are related to KSA in comparison to what is mostly literature from the West. It provides a review of the key literature considering the development of CME across the globe; it provides a variety of definitions and concepts of CME, outlines the roles and advantages of CME, the movement from CME to CPD, and the associated challenges facing medical activities. The chapter discussed several issues that are related to KSA in comparison to what is mostly literature from the West.

Chapters 3 and **4** deal with the explorative phase of the study, in which the related literature and other secondary sources relevant to the subject were examined.

Chapter 3– Saudi Arabian health care system

This chapter presents an overview of the health care system in Saudi Arabia in order to give the reader an understanding of health care and the social situation in the Kingdom. It contains a brief description of the health care system and its early development. The organisation and management of the health system is discussed include the three deliverers of health care – the MOH, other bodies in the government sector, and the private health sector. The considerable financial support given to the health care sector by the government is discussed. Finally, I discuss challenges confronting the system.

Chapter 4- Medical education in Saudi Arabia

This chapter contains a review of a wide range of literature considered relevant to the current study, tracing the evolution and development of medical education in Saudi Arabia and emphasising the key role of the Kingdom's government in developing medical education over four decades. Challenges in professional training are also appraised.

Chapter 5- Methodology

This chapter was made up of four main sections. The first section initially mapped out the selected mixed methods of data collection and the theoretical framework guided the practice. It described the utilising the research methods that are semi-structured interview, questionnaires, and fieldwork. It also detailed the ethnography perspective. The second section detailed the development of the research design, include sampling, gaining access to sites, carrying out the semi-structured interviews, the questionnaires, and the fieldwork. The third section explained the procedure of analysing the data. The chapter ended with a discussion of ethical considerations addressed in the course of doing the research.

Chapters 6, 7, 8 and **9**–deal with the descriptive and explanatory phases of the study; they consider the themes that emerged throughout the study. These include:

Chapter 6- Challenges of health care management

Management problems come before all the other problems facing health care provision in the Kingdom. This chapter examines the main challenges and difficulties of management, which it was found were strongly related to three factors: the MOH system, physician-managers, and Saudi traditions. The chapter focuses on the issue of doctor-managers, as opposed to professional managers, in leadership positions, and discusses the strong cultural interference.

Chapter 7- Budgetary constrains

This chapter highlights the shortage that exists in the budget allocated to CME in Saudi health institutions. The funding sources of CME are identified, and medical practitioners' opinions on commercial support for their learning are presented. The chapter also examines the close relationship between pharmaceutical companies and doctors, which is currently unregulated and unmonitored, and which might be inviting bias.

Chapter 8- The challenges facing medical libraries

This chapter explores the difficulties that health professionals were experiencing in using hospital libraries. A wide range of obstacles were identified. These included the vagueness of the library budget; the uncertain rules and regulations, inappropriate library buildings, a shortage of library resources, inadequate staffing, and deficiencies in library services, and discussed each item in detail.

Chapter 9- Challenges of staff diversity

This chapter discusses the challenges encountered in the process of planning continuing medical education that include a lack of interest on the part of members of staff in attending training courses, and staff resistance to putting what they had learned into practice after attending training. Challenges related to the learning programme were identified, and discussed in four aspects include methods of deciding on activity and content, methods of delivering activities, the standardisation of educational programmes, and evaluating medical activities.

Chapter 10- Integrating the findings- Discussion and conclusions

This chapter presents a summary of the study and answers to the research questions. A final discussion of the findings of this study and conclusions are also provided in this chapter.

Chapter 2 Literature Review

This chapter commences with a brief review of continuing medical education (CME): definitions of CME are provided, followed by an outline of the aims, categories and requirements of CME, including the association between CME and re-certification worldwide. The challenges inherent in the culture of medical education and the ways in which CME should be developed in the future in order to meet these challenges are also presented. The chapter then moves on to a review of relevant CME literature, in which I attempt to answer the questions: Does CME work? What type of intervention is best? Finally, does pharmaceutical industry involvement in CME create bias? Wide literature findings will be related to the context of Saudi Arabia.

Competent physicians have a professional responsibility to continue to learn throughout their careers, to maintain and improve their knowledge and skills in order to provide safe and effective health care for patients (Peck *et al.*, 2000; Du Boulay, 2000; Fletcher, 2008; Brigley *et al.*, 2006; Fletcher, 2008). According to Norman *et al.* (2004), "Today, however, without a programme of active learning no doctor can hope to remain competent for more than a few years after graduation" (p: 999). In addition, Grant (1994) concluded that physicians who fail to acquire new knowledge and skills might, after 10 years, be only 25 per cent as efficient as they were at the time of graduating.

CME is considered to be the foremost among the learning strategies that enhance knowledge and skills within the medical profession (Wensing *et al.*, 1994). Davis (1998) defines CME as "any and all ways by which doctors learn after the formal completion of their training" (p: 358). The primary purpose of continuing medical education is to keep professionals up to date with the latest knowledge in their profession and to enable competent practice for the benefit of patient care (Peck *et al*., 2000; Norman, 2004; Cantillon *et al*., 1999; Davis, 1998).

2.1 Introduction

For all health professionals, regardless of discipline, speciality or type, maintaining professional competence is a core responsibility (Fletcher, 2008).

Although *formal* continuing medical education may be a recent phenomenon, the concept of continuing medical education is not new. Physicians have been participating in medical meetings and reading scientific materials for a long time. Health professionals have been involved in some form of CME since the early twentieth century. Many long-established medical societies and universities in the UK and the US have made immense contributions to postgraduate medical education (Lister, 1994; Manning & DeBakey, 2011).

The American Medical Association (AMA) was founded in the US in 1847, while in the UK, the first Postgraduate Medical Association was set up by Osler in 1911 to develop postgraduate medical training (Lister, 1994). The AMA recognised the need for systematic CME programmes and provided the first formal CME programme in 1907 (Manning & DeBakey, 2011; Wentz, 2011).

CME has developed and expanded significantly over the past two decades. In the United States, the number of activities has doubled since 1998, and there has been a threefold increase in physician participant numbers (ACCME annual report data, 2010). Nearly all physicians, nurses and other health professionals are continuously engaging in educational meetings (Bordage *et al*., 2009; O'Brien *et al*., 2001). Given the popularity of continuing education activities plus professional requirements, it is unsurprising that medical professionals spend an average of one to three weeks per year at CME events (O'Brien *et al*., 2001).

Mazmanian *et al*. (2009) state: "Educational planners, health services researchers, and policymakers search for strategies that lead to better clinical outcomes. Continuing medical education (CME) is one such strategy" (p: 49S). Researchers recognise

various definitions of CME. For example, in its conceptual paper of 2010, the World Health Organisation (WHO) defines CME as "A process of continuing learning to retain, upgrade and maintain professional competence" (p: 1), while the AMA (2010) states that, "CME consists of educational activities which serve 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" (p: 2).

Fox *et al.* (1998), state "CME is a systematic attempt to facilitate change in doctors' practice" (p: 466) in order to achieve the fundamental aim of high patient health care quality and safety (O'Brien *et al*., 2001; Beshyah *et al*., 2012; Little *et al*., 2003). Fletcher (2008) summarises the purposes of CME as being:

> "To improve the quality of patient care by promoting improved clinical knowledge, skills and attitudes, and by enhancing practitioner performance, to assure the continued competency of clinicians and the effectiveness and safety of patient care, and to provide accountability to the public" (p: 3).

2.2 Production and classification of CME courses

O'Brien *et al.* (2001) state that " The nature of continuing education meetings is highly variable in terms of content, the number of participants, the degree and type of interaction, length and frequency" (p: 2).

Overall, health practitioners continue their learning through planned and formal CME activities such as lectures, conferences, symposia, workshops and seminars. Physicians also engage in educational meetings extending beyond the conventional lecture classes, including outreach visits, case discussions, audit and feedback sessions, grand rounds, reminders, peer reviews, written publications, online programmes, and audio and video presentations (Davis, 1998; O'Brien *et al*., 2001; Mazmanian *et al*., 2002; Beshyah *et al*., 2012).

Various classifications of CME can be found. Peck *et al.* (2000) divide medical meetings into e*xterna*l events, internal events and enduring materials (eg print and web-based materials). O'Brien *et al*. (2001: 5) classify medical meetings as employing didactic (passive), interactive or mixed methods.

The previous sections defined CME, highlighted the significance of health professionals to engage in CME, and expressed CME ultimate aim of achieving high quality of patient healthcare and safety. The section pointed out that CME practice backed to the 18 century provided classifications and it expanded significantly over the past two decades, and it finally presented various classifications of CME include formal, informal, and passive or interactive activities.

2.3 Common trends in CME worldwide

2.3.1 CME requirements: Obligation and re-certification

With governments' deepening concerns about escalating medical costs in health care, and social and political pressures, re-certification and participation in CME have now become obligatory in many countries (Davis *et al*., 1995; Davis, 1998; Towle, 1998). Although there are broad variations in CME systems internationally, most of them have two features in common: namely, the content and process of (1) credit points and (2) re-certification.

2.3.1.1 Accreditation

CME credit hours are generally earned by taking part in educational activities approved by a recognised CME committee (Gibbs *et al*., 2005; Davis, 1998; Beshyah *et al*., 2012). Most accreditation systems are based on an hours-related scheme of quantifying educational activities, wherein one hour of medical meeting is equivalent to one credit (Peck *et al*., 2000). Most licensing bodies worldwide require a set number of such learning hours for the renewal of a physician's licence (Davis, 1998; Beshyah *et al*., 2012).

2.3.1.2 Re-certification

Revalidation or re-certification of medical practitioners is required in many countries (Peck *et al*., 2000). The process of re-certification seems to have gathered momentum in Europe (Davis, 1998).

In the UK, registration with the CME system started as a voluntary practice, and the Royal College of Physicians used to issue certificates of completion of the required number of hours for physicians to utilise for their hospital-based appraisals (Beshyah *et al*., 2012). Physicians need to accumulate 50 credits each year in order to reach 250 credits over a 5-year period (Gibbs *et al*., 2005). The system is being redeveloped to link in with the revalidation plans of the General Medical Council (GMC), the official body responsible for registering practitioners (Beshyah *et al*., 2012). Furthermore, plans and proposals for revalidation are changing. New revalidation will be based on local evaluation of doctors' performance through appraisal. Doctors will be expected to participate in annual appraisals in the workplace and will need to maintain a portfolio of supporting information to bring to the appraisals as a basis for discussion. This revalidation system will replace the current re-licensing and re-certification systems as a simpler, more effective and more efficient process, however proposals remain controversial specifically as to whether the methods proposed really will identify poor practice (Rubin *et al*., 2012).

In Canada, to earn and maintain fellowship with the Royal College of Physicians and Surgeons, doctors are required to participate in the 'Maintenance of Certification Programme', which encourages them to manage their education and participate in activities of their choice. The system requires earning 400 credits based on a 5-year cycle (Peck *et al*., 2000; Beshyah *et al*., 2012).

In the United States, health professionals are also to participate in CME in order to retain their licences (Peck *et al*., 2000; Beshyah *et al*., 2012). The establishment of formal re-certification was a result of pressures from health care providers and the

public (Peck *et al*., 2000; Al-Shehri *et al*., 2008). Physicians in most specialities need to renew their licences every 7 to 10 years (Richards, 1998), and an average of 50 CME credits is required every year (Beshyah *et al*., 2012). Many educational programmes usually require participants to complete multiple-choice questionnaires (Peck *et al*., 2000).

However, in several of the developing countries, retaining a licence to practise medicine may not be dependent on the continuous updating of professional knowledge. This is because there are no official systems in many parts of the developing world governing the renewal of professional licences, and revalidation processes often involve nothing more than paying the renewal fees of the particular physician's association (Beshyah *et al*., 2012). Beshyah *et al.* (2012) surveyed some Middle Eastern and North African countries to assess the minimum number of hours of CME that were required. They found that, although the inherent challenges vary widely among different regions, the common denominator in the majority of these countries is that CME enterprises are fragmented and poorly regulated, and that there is no set minimum number of hours of CME activities in which doctors are required to take part. Beshyah *et al.* (2012) state:

> "In many parts of the developing world periodic licensing, revalidation or even annual appraisal are unheard of. A doctor may continue to practice with the same knowledge he or she acquired in the medical school or remote early days of postgraduate training" (p: 5).

However, in some countries, such as Saudi Arabia, established CME schemes do indeed exist (Beshyah *et al*., 2012; Al-Shehri *et al*., 2008). Saudi Arabia is actively working on improving its health care system (Al-Shehri *et al*., 2008). The recent trend is for health care institutions to be accredited by national and/or international bodies. The approach to accrediting CME in the Kingdom is similar to that in the US, in that a central regulatory body accredits certain providers of CME (Al-Shehri *et al*., 2008). The Saudi Commission for Health Specialities (SCFHS), which is the recognised

CME committee, was established in 1993 to develop professional performance and encourage the acquisition of skills along with the enrichment of scientific intellect and appropriate methods of practical application in various health specialities (SCFHS, 2012). The Kingdom applies national standards to CME programmes and there are compulsory CME requirements for the renewal of licences to practise medicine. Medical practitioners are required to have completed a total of 30 hours of CME per year if they wish to retain their medical certification (for details see chapter 4).

With regard to developing countries in the Middle East, on the other hand, Beshyah *et al.* (2012) criticise CME on the basis that it "is not taken seriously" by either the official, regulatory bodies or by doctors themselves (p: 3), and claim that "Many see CME functions as either a luxury or a series of social functions" (p: 5). Further,

> "Unregulated entertainment-style promotional activities being presented as CME may pose more threat to the credibility of CME in other regions with new access to oil and gas-based national wealth" (p: 5).

Re-certification or revalidation might be seen as an integral component of the ongoing commitment to professional development (Peck *et al*., 2000). It has transformed continuing medical education and professional development from a personal initiative into a compulsory programme that must be applied in different institutions. The assumption is that accredited providers will ensure the quality of the education they offer (Al-Shehri *et al*., 2008). However, the international trend towards mandatory continuing medical education has been the subject of much debate for several decades. First, there are questions as to whether the current re-certification system is an efficient way of assessing the effectiveness of CME programmes or whether the paradigm is focused only on accumulating hours of educational activity irrespective of how or by whom standards are set (Peck *et al*., 2000); and Gibbs *et al*. (2005) argue that accumulating medical education credits does not ensure proficiency. Second, there are concerns regarding the impact of obligatory

CME on doctors' competence and practice and, more importantly, on whether it improves the outcomes of health care (Davis *et al*., 1992). Davis (1998) states that to a large extent this kind of learning is not effective and that physicians are unhappy with the regulatory approach. Finally, it is also arguable that this approach is designed to impose rather than encourage professional development and that introducing re-certification is a result of the widely held belief that this method ensures that professional standards will be maintained (Richards, 1998).

The section explored differences, similarities as regard to CME requirements from developed, and developing countries, and compared licensing bodies systems in accreditation and re-certification. While in UK, doctors need to accumulate 50 credits each year in order to reach 250 credits over a 5-year period, in Canada, the system requires earning 400 credits based on a 5-year cycle. US, requires physician to renew their licences every 7 to 10 years, and an average of 50 CME credits is required every year. The section moved then to describe systems in the developing countries reported that there are no official systems in many parts of the developing world governing the renewal of professional licences, and recertification processes often involve nothing more than paying the renewal fees. However, the scheme is exist in Saudi Arabia and require medical practitioners to complete a total of 30 hours of CME every year. This section also highlighted the culture of CME inside Saudi Arabia, and how it does not taken seriously. Finally, it presented the debate regarding the international trend towards mandatory continuing medical education, and assumed that accumulating medical education credits does not ensure proficiency.

2.4 Challenges for continuing medical education

This part is divided into three sections; first, the various internal and external forces affecting the provision of health care are described, then the requirements for CME

in the future are outlined, and finally the collaboration of the pharmaceutical industry in CME is discussed.

2.4.1 Forces challenging the culture of medical education

Foremost among the challenges and opportunities facing CME are the globalisation of health, movements such as evidence-based medicine, accelerating advances in health information and technology, access to the internet as a learning and communication tool, changes in health care systems, patient empowerment and autonomy, changing demographics, lifestyles and patterns of disease, and an emphasis on the accountability of methods of assessing professional competence (Sectish *et al*., 2002; Fox *et al*., 1998; Towle, 1998; Cantillon *et al*., 1999; Davis, 1998; Fletcher, 2008; Little *et al*., 2003). These challenges enforce planners to incorporate better and more effective practices of continuing education (details are later on in the chapter).

Researchers have also identified personal forces that are challenging physicians across and within countries, including doctors' personal lives, their professional aspirations, and curiosity (Fox *et al*., 1998). In addition to the factors mentioned above, in the developing countries in particular, of relevance are different languages, variations in training (Davis, 1998), and a lack of motivation and incentive on the part of participants (Beshyah *et al*., 2012).

2.4.2 Future needs of medical education

The various forces mentioned above seem to be scattering practitioners in different directions and affecting physicians' motivation to participate in medical meetings (Little *et al*., 2003). In order to maintain efficiency and enthusiasm among clinicians, those involved in organising continuing medical education will need to be aware of these factors and respond to the contexts in which it operates (Little *et al*., 2003; Towle, 1998).

Regarding the challenges, the questions to date are: how can we create a learning system that is better able to respond to rapid changes in the outside world (Towle, 1998; Fox *et al*., 1998) and what future direction might CME take because of these forces? Furthermore, which education strategies lead to changes in caregiver practice? Attempts to answer these questions are made in the following section.

CME systems will need to be comprehensive and sensitive enough to change in the following three ways:

1. from teacher-directed to self-directed learning,
2. from passive to interactive learning, and
3. learning *within* learning institutions.

It has been argued that these three strategies, or components, should also be linked and introduced at the same time in order to be effective in facilitating improvement and learning in context (Fox *et al*., 1998**;** Davis, 1998**;** Towle, 1998; Spivey, 2005).

This section discussed challenges for continuing medical education in two parts; first, the various internal and external forces affecting the provision of health care were outlined, foremost among them are globalisation, new practices and methods of professional assessment, health information and technology advancement, the internet, patient empowerment, and changing demographics. Besides, personal forces including doctors' personal lives, and curiosity. Second, suggestions to overcome the future needs of medical education was discussed, to maintain efficiency among doctors, medical education providers need to respond to these challenges, and CME systems will need to change from teacher-directed to self-directed learning, from passive to interactive learning, and learning *within* learning institutions.

2.4.2.1 Self-directed learning

Physicians have the responsibility to improve their clinical practice and adopt lifelong learning (Richards, 1998; Fletcher, 2008). For some time, it has been obvious that physicians need to have personal professional development plans, and that these plans need to be based on the principles of adult learning (Little *et al*., 2003).

Adult learning theory holds that a key premise of good learning is the ability to identify one's own learning needs and to stimulate self-directed learning (Richards, 1998; Fox *et al*., 1998; Mazmanian *et al*., 2002).

To achieve the maximum potential of CME, activities must be ongoing; every doctor must assume personal responsibility to participate in educational opportunities (Peck *et al*., 2000; Mazmanian *et al*., 2002), and doctors must be able to see that CME activities enable them to generate essential queries, understand new knowledge, and evaluate how to utilise that knowledge in clinical contexts (Mazmanian *et al*., 2002). Essentially, this means that CME must be self-directed by the doctors (Mazmanian *et al*., 2002). In self-directed learning, the focus is on the individual: in order to become more efficient and effective learners, physicians need to understand how they learn and how their learning strategies may be improved (Fox *et al*., 1998). The autonomous approach is essential and valued by individual learner doctors because adults tend to favour self-directed learning (Fox *et al*., 1998; Gibbs *et al*., 2005).

Furthermore, there has been a shift in the CME perspective whereby, instead of education being viewed as teaching, it is viewed as the facilitation of learning (Fox *et al*., 1998; Cantillon *et al*., 1999; Little *et al*., 2003). Cantillon *et al.* (1999) note that "The recognition that learning not teaching causes doctors to change their practice has led to a new educational focus; self-directed and lifelong learning" (p: 1276). (The issue of learning as opposed to teaching will be discussed later in this chapter).

In the review of the relevant literature, it was found that several researchers also recommend a self-directed curriculum designed by each doctor and emphasise the fact that in order to maintain professional excellence, the culture of the educational system needs to be reformed by adopting this method (Norman *et al*., 2004; Sectish *et al*., 2002; Towle, 1998). This new perspective on learning has in fact started to spread throughout North America and elsewhere (Fox *et al*., 1998), although Beshyah *et al.* (2012) report that in underdeveloped nations, medical events are not based on effective self-directed learning.

The new perspective means that doctors have to take responsibility for improving their own performance, and be able to identify their own professional needs during clinical practice (Grant, 2002; Fox *et al*., 1998). Sectish *et al.* (2002) suggest that this method will enrich the learning: "A self-directed learning, which places physicians in control of what they need to know and what they want to learn, will facilitate deeper and more enduring learning" (p: 152).

However, there is a problem in that not every practitioner is capable of clearly identifying his/her own needs (Norman, 1999; Al-Shehri et al., 2001). Some doctors are in fact very poor at identifying their learning needs. Indeed, there is evidence that clinicians orientate towards what they *want* to learn, not necessarily towards what they *need* to learn. It has been found that challenging educational activities, which address deficits in performance, are not usually attractive to doctors, who generally prefer not to work outside their comfort zones and for the most part go for the soft educational options (Richards, 1998; Toon, 1997). It is therefore necessary for there to be systems and methods that facilitate genuine needs assessments (needs assessment is discussed later in this chapter).

2.4.2.2 Interactive and passive learning

Does CME work?

Improvements to physicians' performance, knowledge and skills and/or health care outcomes are the types of change that have been the main focus of studies of CME (Davis *et al*., 1992; Fox *et al*., 1998), and researchers have observed variable outcomes. However, the amount of required knowledge and skills is debatable (Gibbs *et al*., 2005), and since the focus of the current study was on physicians, I concentrated in this review on the primary measures of physician *performance* rather than their acquisition and application of knowledge.

There has been great debate concerning the effects of continuing medical education on the performance of clinicians in practice (Davis *et al*., 2009). Some reviews of the research into these effects are examined in the following section.

The reviews found a wide variety of results and outcomes among the studies. According to Fletcher (2008), current CME puts too little emphasis on improving clinicians' competence and performance, whereas Davis's systematic review (1998) revealed that two-thirds of the studies (70 per cent) demonstrated a change in practitioners' performance. Furthermore, Davis *et al*. (2009) conducted a systematic review of 105 studies, the aim of which was to evaluate the impact of CME on the short- and long-term clinical performance of physicians. The majority of these studies reported positive outcomes.

Educationalists and others have been looking more critically at the provision of continuing medical education. There has been rising consensus on how doctors learn (Eraut, 2001) and on which learning approaches are helpful (Richards, 1998; Grant, 2002; Du Boulay, 2000). According to Collins *et al.* (2002), "CME studies have expanded dramatically as a result of a need to know why and how physicians learn,

and how formal and informal education contributes to the medical practice of competent physicians" (p: 1).

However, it is generally accepted that different combinations of formal and informal learning methods are appropriate for different learning objectives (Grant, 2002; Wensing *et al*., 1994; Walsh, 2006). As Sectish *et al.* (2002) state: "Physicians are expected to learn specific knowledge and skills presented in different formats by experts and then to incorporate this learning into their own practices at a later time" (p: 152).

Furthermore, in 1995, Oxman *et al.* conducted a systematic review of 102 trials of interventions to determine the effectiveness of continuing medical education. They concluded that "There are no 'magic bullets' for improving the quality of health care, but there are a wide range of interventions available that, if used appropriately, could lead to important improvements in professional practice and patient outcomes" (p: 1423).

On the other hand, my search of relevant CME literature included systematic reviews that examined a range of types and efforts, and pointed to the size, scope and effect of CME activities on patient health care and physicians' needs. The subjects of these reviews included the effects of instructional media on clinical performance, comparisons of single and multiple instructional techniques (Bordage *et al*., 2009; Mazmanian *et al*., 2009), comparisons of single and multiple exposures to CME on performance (Davis *et al*., 2009; Bordage *et al*., 2009; Mazmanian *et al*., 2009), and comparisons between multiple media and single medium interventions (Mazmanian *et al*., 2009). Despite the heterogeneity of the focus and type of intervention in the studies reviewed, I targeted only studies of CME from the passive and interactive perspectives to avoid deviating from the focus of the current study.

In the review, which follows, I compare educational meetings that use interactive components with those that are lecture-based with regard to the variable effects on changing professional performance in the practice setting.

Passive educational approaches

Traditional CME, including conferences, workshops, short courses and lectures, remains the staple of structured CME in both developed and developing countries (Davis, 1998). Beshyah *et al.* (2012) affirm that underdeveloped countries use educational methods similar to those used in developed countries, and so medical events delivery is often based on plenary lectures and not on group sessions or workshops. There are, in fact, no possibilities of active involvement of doctors, and many activities are still carried out by single speakers. In fact, "stand-alone" activities are a phenomenon peculiar to the Middle East (Beshyah *et al*., 2012, p: 5)

In addition to these interventions, Davis (1998) reports that telemedicine has been utilised explicitly in the Middle East, including in Saudi Arabia, because of geographic isolation. Telemedicine projects provide opportunities to link isolated physicians to those in the United States and other countries.

Researchers of the past two decades have been trying to assess continuing medical education interventions that it is anticipated will change clinicians' performance and enhance patient outcomes (Mazmanian *et al*., 2002). Relatively short (one-day or less) conventional medical meetings, typically 'lunchtime' events and conferences, have been widely criticised. Much of the criticism is directed at the methods of delivery frequently applied in the formal learning programmes (Davis *et al*., 1992). As explained earlier, these formal activities typically put too much emphasis on teacher-centred lectures and utilise passive educational forms (Davis, 1994; Mazmanian *et al*., 2002). These currently widely-used CME delivery models appear to have had little direct effect on improving physicians' clinical practice (Davis *et al*., 1992; Davis *et al*.,

1995; Little *et al*., 2003; Fletcher, 2008). O'Brien *et al.* (2001) state: "Lectures or presentations alone were unlikely to change professional practice" (p: 2).

Two reviews by (Davis *et al.* 1992 and 1998) found that formal CME conferences and lectures without enhancing or practice-reinforcing strategies had relatively little impact.

Therefore, researchers have supposed that hospitals must have other reasons for providing didactic lectures, including entertainment, socialisation among health professionals, and motivational functions (O'Brien *et al*., 2001; Fletcher, 2008).

In contrast, Fox *et al.* (1998) point out that lectures and other formal teaching interventions have a long history in the culture of medicine, and recommend that the lectures should continue because they give information on what should be done, reflect on what is being accomplished, and summarise what can be done. This supported by the view of many researchers that in order to achieve positive outcomes, multiple instructional techniques are to be preferred over single techniques (Mazmanian *et al*., 2009; Bordage *et al*., 2009). The aim of the above-mentioned studies was to evaluate traditional lecture-based CME, which is currently being overused. My examination of these studies suggests that didactic presentations alone are largely ineffective in changing the performance of health professionals.

Interactive learning and opportunities to practise

Changes in performance can be better achieved and measured through educational activities that are based on professionals' daily practice, and that utilise interactive approaches. These include computer-generated reminder systems (Mazmanian *et al*., 2002; Fox *et al*., 1998) and audits accompanied by feedback charts (Oxman *et al*., 1995; Davis *et al*., 1992; Mazmanian *et al*., 2002; Little *et al*., 2003; Gibbs *et al*., 2005; Fletcher, 2008).

Oxman *et al*.'s (1995) systematic review of 102 trials of interventions, carried out to determine the effectiveness of different types of medical intervention, found that audit and feedback and reminders were more likely to result in changes in performance. Davis's systematic review (1998) obtained similar findings to those in the studies mentioned above. He found that the reminders method appeared to be the most effective.

Moreover, many of these knowledge or skills-enhancing CME modalities use practice-based learning, such as small group learning experiences, case discussions, grand rounds and peer review groups (Fischer, 1994; Davis *et al*., 1992; Davis, 1998; Fox *et al*., 1998; O'Brien *et al*., 2001; Mazmanian *et al*., 2002; Little *et al*., 2003; Fletcher, 2008).

Davis *et al.* (2009) point out that the relationship between education and performance is important to many stakeholders in the health care system. Hence, Little *et al.* (2003) and Fletcher (2008) recommend that organisations encourage interventions that promote the use of collaborative teamwork and internet technology for practice-based learning, and Davis *et al.* (1995) note that, although outreach visits are a more effective method, CME providers seldom utilise them.

This section compared educational meetings that use passive and interactive educational approaches, as regard to their variable effects on changing professional performance in the setting. Passive or lecture-based meetings, remain the staple of structured CME in both developed and developing countries, however relatively short conventional medical meetings, have been widely criticised. These activities typically put too much emphasis on teacher-centred lectures, which appear to have had little direct effect on improving performance. Nevertheless, some authors highlight that lectures have a long history in medicine and they are beneficial in providing information. On the other hand, the evidence reviewed regarding interactive learning suggests that a broad construction of CME as a live, face-to-face

activity with interactive workshops providing opportunities for professionals to enhance their skills is most likely to be effective. The literature therefore calls for the CME enterprise to be moved as rapidly as possible away from excessive reliance on presentation/didactic sessions-based formats to interactive techniques (Fletcher, 2008).

Movement of CME towards CPD

CME remains the principal method through which practising physicians continue their education outside a university setting (Josseran *et al*., 2001). However, as the competence of individual physicians has come under increasing scrutiny, so the focus on CME has intensified. During the 1990s, it was increasingly recognised that the majority of CME activities relied on a lecture format and were rooted in teaching (Cantillon *et al*., 1999; Fox *et al*., 1998).

CME has also been criticised for a lack of emphasis on activities that are key to improving knowledge, skills and performance. It does not encourage inter-professional collaboration, and insufficient emphasis is placed on individual learning driven by the need to answer the questions that arise during clinical practice (Fletcher, 2008). In addition, as mentioned earlier, CME assessment is based on the number of learning credits obtained. Du Boulay (2000) argues that medical education providers pay little attention to the quality of content; they put more weight on quantity than on value, and Richards (1998) states that, "More emphasis has been placed on quantity than quality" (p: 3). Some think that the only purpose of CME is to enable doctors to obtain re-certification, which is something they are pressurised to do by external forces. CME can therefore be thought of as an extra load on physicians, since they have to commit time, often in the evenings, in addition to their regular working hours (Gibbs *et al*., 2005). Richards (1998) states: "For many clinicians, continuing medical education is a chore, and most go for the soft educational options" (p: 1).

From the public side, with the increasing global orientation towards patients' rights and public awareness about the importance of receiving high quality health care services, patients' expectations are increasing significantly, with higher levels of medical services being requested from their side since they have had easier access to online medical information, whether or not it is correct (Chan, 2002).

Despite the fact that, on an international scale, credibility has been attached to the role of continuing medical education in enhancing health professional standards for many years, that current CME systems are not meeting their real needs (Fletcher, 2008). Wensing *et al.* (1994) confirm this, stating: "Doubts have been raised about the effectiveness of traditional types of continuing medical education" (p: 115). A call has come both from within the profession and from the public to reform the concept of CME and improve its effectiveness (Chan, 2002).

Moreover, Towle (1998) suggests the possibility that "Such a system ill prepares doctors for a world which demands the ability to acquire, appraise, and use information in order to solve clinical and other problems efficiently" (p: 4). In 1998, the Standing Committee on Postgraduate Medical and Dental Education in the United Kingdom (SCOPME) declared that CME was no longer sufficient to meet all the educational needs of practitioners in contemporary health care and suggested that CME be placed into a broader context of continuing professional development (CPD) (Gibbs *et al*., 2005). As noted by Sectish *et al.* (2002) "CME is beginning to evolve into continuous professional development (CPD)" (p: 152).

Gibbs *et al.* (2005) declare that CPD is not just broader educationally than CME, but that CPD is a process rather than an educational event. Whereas with CME most practitioners attended formal medical meetings (mainly lectures) (Gibbs *et al*., 2005), CPD might include wide-ranging competencies like research and scientific writing, multidisciplinary contexts of patient care, professionalism and ethical practice, doctor-patient communication, leadership, management and behavioural skills,

team building, and information technology (WHO, 2010; Du Boulay, 2000; Peck *et al*., 2000; Sectish *et al*., 2002). There is, however, no clear division differentiating CME from CPD, as recently CME has covered topics that go further than clinical updates, including managerial, social and personal skills (Peck *et al*., 2000), and Gibbs *et al.* (2005) confirm that there is still room for short educational events with both didactic and interactive components. On the other hand, Gibbs *et al*. (2005) describe CPD as superior to CME. Various benefits of using CPD within the medical profession were found in the literature, including the following:

CPD moves CME-related activities to an educational environment that is organised on a formal, regular and planned basis (Gibbs *et al*., 2005).

CPD recognises that a doctor is involved in more than clinical work (Du Boulay, 2000; Peck *et al*., 2000). According to Peck *et al.* (2000), "Not only are the wide ranging competences needed to practice high quality medicine but also the multidisciplinary context of patient care" (p: 432). Du Boulay (2000) states that "Doctors need skills that extend beyond updating their medical knowledge in order to practice effectively" (p: 393) and that "These broader skills are embraced by continuing professional development" (p: 393). All these issues need to be tackled when considering an individual's professional development and researchers are calling for education system justification (Peck *et al*., 2000; Gibbs *et al*., 2005; Chan, 2002).

CPD implies self-directed learning rather than formal activities. Using the principles of adult education and learning in practice will replace the teacher-centred and teacher-driven CME process, and the short-term goals of traditional CME (Fox *et al*., 1998; Cantillon *et al*., 1999; Richards, 1998; Peck *et al*., 2000; Davis *et al*., 2003; Linos, 2005; Gibbs *et al*., 2005). Beyeler *et al.* (2004) explain: "Continuing professional development (CPD) is characterized by lifelong, self-directed learning rather than

supervised training and aims at maintaining and further developing a broad range of competencies for knowledge, skills, and attitude" (p: 684).

CPD recognises the varying educational needs of the physician in a changing setting; CPD embodies both professional learning and personal growth (Davis *et al.*, 2003). Peck *et al.* (2000) identify CPD as "The process by which health professionals keep updated to meet the needs of patients, the health service, and their own professional development" (p: 432). Farooq (2003) states: "One of the most important reasons given for CPD is that it allows doctors time to discover and fulfill learning needs, increase job satisfaction and improve self-esteem" (p: 161).

Furthermore, Chan (2002) suggests changing the 'top-down' approach used in traditional CME programmes, in which all the lectures or workshop materials are provided so that learners choose which new skills they wish to acquire during the course, to a more 'bottom-up' approach in CPD, in which the learners themselves select in advance those areas where changes and improvements are necessary.

Moreover, the Professional Development Plan (PDP) is firmly rooted in the CPD procedure. This allows physicians to arrange a learning schedule that is convenient for them (Gibbs *et al*., 2005). In addition, professional development facilitates the use of a wider variety of learning formats and media at venues other than lecture halls and conference rooms, unlike the more traditional CME (Linos, 2005).

Finally, CPD includes activities that are of more value to practitioners (Gibbs *et al*., 2005; Little *et al*., 2003). Gibbs *et al*. (2005) state that the theoretical basis for adult learning theory includes "learning through experience" (p: 5), which "will strike a familiar chord with clinicians" (p: 5). For instance, Brigley *et al.* (2006) conducted a survey of a total of 869 consultants and non-consultant career-grade staff in Wales (UK) to examine their views on CPD. The findings showed that most career-grade

doctors felt pleased with the CPD approach, and roughly, two-thirds of both groups consulted revealed that CPD had changed their clinical practice.

On the other hand, Chan (2002) claims that the shift of medical education from continuing medical education to continuing professional development needs more time, stating that, "While it is easy to theorize CPD, its promotion among the profession is not an easy task" (p: 89). This is understandable, since CME has been widely accepted among health care professionals over a long period of time, and since it has a clear credit system accepted by most licensing bodies worldwide. In addition, CPD requires much more time and effort from the already overworked practitioner than conventional CME. Organising CPD activity is also much more demanding in terms of both human resources and finance, as CME attracts sponsorship from pharmaceutical and health-related companies more easily than CPD activities (Chan, 2002).

This section discussed forces impact to move CME towards CPD. CME turn to emphasis on quantity than quality for the purpose of re-certification; therefore, most doctors choose the soft educational options. However, with patients' empowerment, recognition that the majority of CME activities were rooted in teaching, while learning not teaching that lead to change in practice directed some education agencies to declare that CME was no longer sufficient to meet all the educational needs of clinicians suggested that CME be placed into (CPD). CPD might include wide-ranging competencies like research and scientific writing, multidisciplinary contexts of patient care, professionalism and ethical practice, communication, leadership, management and behavioural skills, and team building. Various benefits of using CPD were outlined, including the following: CPD is organised on a formal and planned basis -related activities, it extends beyond updating medical knowledge, it implies self-directed learning, and (PDP) is firmly rooted in the CPD procedure. Finally, CPD includes activities that are of more value to practitioners. The section also highlighted that shifting to CPD needs more time, since CME has

been widely accepted, has a clear credit system, and because CME attracts sponsorship from pharmaceutical more easily than CPD activities.

The above reference to financial support for CME leads on to another subject, which is that physicians are continually attending educational meetings, and the amount of resources spent on continuing medical education for clinicians is difficult to estimate (Richards, 1998). However, the costs alone of the activities are already high, without taking into account the underlying questions as to whether CME activities actually improve the knowledge, skills and performance of caregivers (Bordage *et al*., 2009) and whether the benefits are worth the costs (Richards, 1998). Researchers have questioned the effectiveness of these activities in changing professional practice for years. Attempts to answer these important questions will be made later in this chapter. (In this study, medical activities will henceforth be referred to as CME to avoid confusion.)

2.4.2.3 The role of organisations

In the previous section, it was concluded that CME providers should: (1) facilitate self-directed learning; and (2) introduce faculty interactive scenarios into their CME activities, based on small group educational techniques where possible. Here I will discuss the third integrated strategy, which relates to the role of the health care institution.

Learning is the shared responsibility of staff and health care organisations (Gunn *et al*., 2008). Eraut (2001) notes that, "Responsibility for CPD effectiveness lies with the learners and the organization which employs them" (p: 11). This places additional demands on employers and education providers to facilitate all aspects of learning and to ensure that the needs of all members of staff are met within the context of the workplace (Fletcher, 2008; Bordage *et al*., 2009). Health services should enable learning and help staff to achieve exactly what they need to in order for them to be more self-sufficient (Fox *et al*., 1998). In order to accomplish this, researchers

emphasise that CME should consist of more than conferences and courses. Rather, it should be based on the results of needs assessment and should also include outcome evaluation, to enable physicians and CME providers to examine the effects of learning (Towle, 1998; Mazmanian *et al*., 2002; Gibbs *et al*., 2005). Towle (1998) states: **"**Continuing medical education must be developed from two ends: needs assessment and outcome evaluation" (p: 304).

Learning needs assessment

Education programmes should be modified to accommodate the needs of individuals and so that they are relevant to the service, the clinical team and the hospital (Gibbs *et al*., 2005). Health professionals need learning that addresses their individual needs, as well as personal development and opportunities (Gibbs *et al*., 2005; Pisacane, 2008; Fletcher, 2008; Al-Shehri *et al*., 2001).

Learning needs assessment provision is a relatively recent development in medical education (Grant, 2002; Walsh, 2006). Walsh (2006) states: "Learning needs assessment in medical education is still in its infancy – 10 years ago, it did not exist in any formal capacity" (p: 31).

Some broad definitions are as follows: "Needs assessments are often conducted to identify or anticipate deficiencies in knowledge, skills, behavior, or attitude" (Ratnaplan *et al*., 2002, p: 3); and "A need assessment is a systematic exploration of the way things are and the way they should be" (Rouda *et al*., 1995, p: 1)

Importance of needs assessment: Fletcher (2008) articulates the need for new metrics to assess the quality of CME and therefore enhance outcomes; these metrics should be based on a process of needs assessment. Researchers believe that the education system should incorporate the needs assessment approach and argue that the accurate assessment of needs is an essential step before conducting any

interventions (Davis, 1998; Grant, 2002; Norman, 2004; Beyeler *et al.*, 2004; Walsh, 2006; Towle, 1998; Gupta *et al.*, 2007; Beshyah *et al.*, 2012).

Mazmanian *et al.*'s systematic review (2002) examined studies that identified the most effective CME as including an assessment of learning needs factor concluding that: "Assessment of learning needs is crucial for effective CME" (p: 1057). Grant (2002) affirms that it is generally acknowledged that learning has the power to drive change in practice when needs assessment has been conducted. Norman *et al.* (2004) state: "Evidence from systematic reviews of the literature shows that programmes in continuing medical education that are predicted on well conducted needs assessment are effective in changing doctors' behaviour" (p: 1000).

In addition, assessment is essential in order to identify inconsistencies among physicians and their behaviour (Mazmanian *et al.*, 2009). According to Ratnaplan *et al*. (2002), "Needs assessments are often conducted to identify or anticipate deficiencies in knowledge, skills, behavior, or attitude" (p: 3). Further, Bordage *et al.* (2009) state:

> "Physician-learners progress at their own rates, depending on motivation, knowledge of a problem, or the perception of a gap between their current knowledge and skills and those needed. When barriers to change are addressed or gaps are demonstrated and resources deployed to help the learner, change may be expected to occur" (p: 33S).

Therefore, utilising needs assessment will ensure that the programme is relevant to the needs of the learner, the service and the institution (Turner *et al.*, 2004; Gibbs *et al.*, 2005). Grant (2002) states: "The main purpose of needs assessment must be to help educational planning" (p: 158). In contrast, Daley *et al.* (1999) state: "Programs without learning needs assessment may not meet participant needs and therefore may be ineffective in bringing about change" (p: 111). Richards (1998) explains that not many clinicians are fully aware of, or care about, which educational approaches work best, so they are unlikely to be able to change their performance on their own.

Hence, providers should recognise doctors' professional obligations and commit themselves to providing effective continuing medical education that is based on practitioners' real needs.

When to undertake learning needs assessment: Reviere *et al.* (1996) state that learning needs assessment is an interactive process that is responsive to changes in work performance: in other words, changes in the quality or quantity of work. An organisation should assess its people's learning needs each year in order to cope with assumed changes and identify expected employee needs for the following year (Amaral *et al.*, 1997; Daley *et al.*, 1999). Moreover, according to Richards (1998), Wojtczak (2002) and Beyeler *et al.* (2004), assessing needs should be an ongoing process throughout the year not only to provide ongoing feedback, but also, as Champion (2000) notes, in order to avoid situations such as having seasonal needs, which can happen when information is gathered during a period of stress or work overload.

Learning needs assessment tools: Research has shown that using one assessment tool to identify all of the learning needs is inadequate; organisations should use combinations of instruments in a variety of ways (Wojtczak, 2002; Lawson, 2006; Beshyah *et al*., 2012). Wojtczak (2002) asserts that a range of assessment techniques is available to choose from:

> "In the last decade, we have observed the rapid evolution of assessment methods used in medical education from the traditional ones towards more sophisticated evaluation strategies. Single methods were replaced by multiple methods" (p: 1).

An extensive number of assessment instruments are now available; the literature identifies more than 40 methods of needs assessment (Walsh, 2006). The range of methods includes traditional approaches, such as observation, and approaches introduced over the past few years, such as portfolios (Shumway *et al.*, 2003) and patient standardisation.

Eraut (2001)has stated: "My own experience of researching CPD in several professions has identified three problem areas, which are rarely given sufficient attention: the identification of learning needs, prioritization of those needs, and matching prioritized needs to learning opportunities and activities" (p: 9).

Beshyah *et al.* (2012) reviewed various aspects of continuing medical education in many parts of developing countries. They record that the CME of today is still deficient in many aspects. As regards selecting topics and approaches, they state that the choice of topics and programme is not oriented towards or modified to accommodate the needs of doctors working in developing countries; courses generally have fixed programmes, and providers do not alter them to suit the needs of their doctors. The programmes are modified to suit the available speakers. Speakers choose topics that reflect their seniority, or sometimes the hospital administration might change the planned subject to a more convenient one. Similarly, Al-Fouzan (2001), Al-Shehri *et al*. (2001) and Tumulty (2001) affirm that in Saudi Arabia, educational activities are based on desires and wishes rather than on real needs, and educational activities are focused only on the quantity of CME. Thus, medical education has developed, in a haphazard manner, without planning or providing comprehensive services (Al Rabeeah *et al*., 2009; Al-Shehri *et al*., 2008).

On the other hand, the most common reason for not assessing needs is that it may not be possible or desirable for the education providers. one of the reasons being that the cost of educational activities in specialised organisations like hospitals is very high (Lawson, 2006). According to Lleck (2007), in 2006 organisations in the United States spent more than $56 billion dollars on formal training. The costs in the field of CME are hard to determine, but are expected to be in the billions of dollars (Richards, 1998). However, little attention has been given to the needs assessment process owing to the extra cost of applying such a process. Daley *et al.* (1999) explain: "Since conducting needs assessments can be a costly venture, continuing education

program providers often apply their resources to the actual creation of programs rather than to the assessment of learning needs" (p: 111).

In brief, more recently, the literature has referred to needs assessment as an essential component of the educational process; it is assumed that needs assessment plays a crucial role in improving medical education programmes. The purpose of conducting needs assessment is to identify gaps between existing and required knowledge and skills, and to help in constructing proper training programmes to compensate for the deficiencies identified. This technique of examining requirements from a learner's perspective makes the learning more appropriate. It encourages the active participation of doctors in identifying their real needs rather than their desires (Norman, 1999). This finding leads in to the final section of the chapter, in which one of the phenomena resulting from attempts to secure sufficient funding for CME, the involvement of the pharmaceutical industry in CME, is discussed. Prior to this, however, the second important component of an effective CME process, outcome evaluation, is examined.

Outcome evaluation

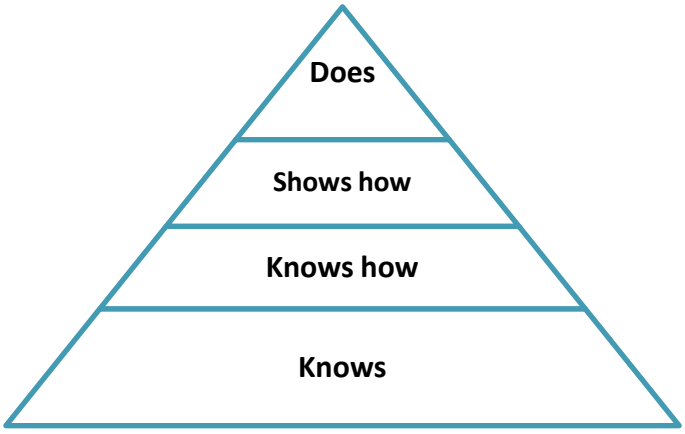
According to Towle (1998), "Continuing education is not an end in itself but a means" (p: 304). It is a legitimate endeavour that immediately, or sometime after the end of a continuing medical education activity, enables providers of CME to assess physicians' knowledge acquisition and retention (Towle, 1998; Bordage *et al*., 2009). There are, however, many other aspects worthy of measurement in CME, such as attendee satisfaction, putting skills into practice, and, eventually, patient outcomes (Bordage *et al*., 2009).

Introducing a good method of evaluating doctors is important in the continuous effort to improve the quality and impact of the development opportunities provided; it helps in examining the effects of learning on clinical performance (Mazmanian *et al*., 2002). In other words, evaluation can serve two purposes: to assess learning

needs, and to assess practitioners' capability to translate their knowledge and skills into practice (Bordage *et al*., 2009).

Finding measurement techniques suitable for assessing CME outcomes is always a challenge to both health professionals and CME providers (Mazmanian *et al*., 2009). Various models, which may be followed to guide the evaluation of CME, can be found in the medical literature. One of the most popular is Miller's pyramid (Bordage *et al*., 2009; Mazmanian *et al*., 2009). Miller's pyramid (Figure 2-1) divides the assessment of clinical competence into categories: the lowest level is factual knowledge (knows); the second level is competence knowledge (knows how); this is followed by performance (shows how), and action (does) (Bordage *et al*., 2009; Miller, 1990).

Figure 2-1 Miller's pyramid of clinical competence



Source: (Miller, 1990)

Finally, CME providers need to be rigorous in their evaluation of the effectiveness of their programmes to ensure that their programmes make a difference to physicians' performance and improve health care outcomes (Towle, 1998). Both evaluation and assessment are thus essential aspects of the creation of an effective programme.

2.4.3 Pharmaceutical industry

Drug companies have played a significant role in improving the health of humankind (Abbasi *et al*., 2003; Brody, 2009; Jibson, 2006). Pharmaceutical companies have contributed nearly all the drugs and medical devices available on the market for the past 60 years (Abbasi *et al*., 2003; Beshyah *et al*., 2012).

Major advances in health care have come from collaboration between medical and commercial entities (Fletcher, 2008). Moreover, the corporations have made valuable contributions to educational health centres to support research programmes and buildings, all of which have benefited the community (Fletcher, 2008; Davis *et al*., 1995).

Much financial support for CME derives either directly or indirectly from commercial companies (Fletcher, 2008). In developed countries, pharmaceutical companies and medical device manufacturers fund more than half of the continuing medical education meetings (Pisacane, 2008; Gould, 2008; Moynihan, 2008; Fletcher, 2008; Beshyah *et al*., 2012). For instance, in 2006, support from commercial drug companies in the US totalled $1.45 billion; that is equivalent to 60 per cent of the total revenue spent on CME (Fletcher, 2008). Similarly, according to Beshyah *et al*. (2012), in many parts of developing countries "CME is mainly sponsored by pharmaceutical companies […] The industry presently pays for about half of all postgraduate medical education" (p: 5).

The growing connection between continuing medical education and the interests of the pharmaceutical industry, however, is now widely acknowledged as presenting a significant problem (Richards, 1998; Fletcher, 2008). The heavy dependence of CME on pharmaceutical industry sponsorship raises concerns regarding informational bias (both intentional and unintentional) (Beshyah *et al*., 2012; Fletcher, 2008). The involvement of pharmaceutical firms with health professionals has been discussed extensively during the past two decades. Concern has focused on the impact the

involvement of commercial drug companies may be having both on CME itself, and, as a result, on the clinical practice and behaviour of professionals, which may in turn be undermining their commitment to their patients (Abbasi *et al*., 2003; Shooter, 2005; Angell, 2005; Blumenthal, 2004; Brenann *et al*., 2006; DeAngelis *et al*., 2008; Jibson, 2006).

2.4.3.1 Ethical principles

According to the AMA, as members of the medical profession physicians are pledged to a body of ethical principles generated mainly for the benefit of patients. Beauchamp and Childress (2001) have formulated four fundamental ethical principles, which are:

1. respect – for individuals' autonomy;
2. beneficence – doing well for patients;
3. non-maleficence – doing no harm, and
4. justice – individuals should be treated fairly.

The question may be asked: In the case of physician-industry collaboration, where do physicians stand in relation to principles 2 and 3? The fundamental characteristic of the relationship between physician and patient is trust; patients must be confident that doctors are working for their benefit (Vassilas *et al*., 2006; Jibson, 2006).

To date, there have been no studies that have specifically addressed the impact of pharmaceutical industry funding on patient care (Cervero *et al*., 2008). However, the literature highlights the fact that commercial manufacturers and health care professionals have inherently conflicting interests in CME (Fletcher, 2008; Brennan *et al*., 2006; Vassilas *et al*., 2006). Pharmaceutical and medical device companies have a legitimate responsibility to generate a profit and increase shareholder benefits by enhancing the marketing of their products; whereas health professionals have a moral obligation to offer members of the public care that is safe, of the highest

standard and based on valid scientific findings. The two objectives are incompatible (Fletcher, 2008; O'Brien *et al*., 2001; Brennan *et. al*., 2006; Vassilas *et al*., 2006; Abbasi *et al*., 2003; Davis, 2004).

Commercial drug companies consider CME events as investment campaigns and may sometimes manipulate the rules to increase the sale of their products (Moynihan, 2008). If this were not the case, they would be unlikely to contribute such large sums of money (Squires, 1993; Abbasi *et al*., 2003; Jibson, 2006; Coyle, 2002). Abbasi *et al*. (2003) argue that the industry would go bankrupt if doctors simply expected freebies from it (freebies comprising everything from medical equipment (e.g., stethoscopes) to books, pens, post-it labels, key rings etc). Hence, companies cannot be expected to be neutral or objective (Fletcher, 2008; Beshyah *et al*., 2012), and this therefore invites bias. Even if bias could be avoided, concerns regarding the possibility of bias would still exist (Fletcher, 2008).

O'Brien *et al.* (2001) surveyed general practitioners attending activities organised by commercial companies. They found that 60 per cent of the attendees considered the meetings to be of little educational value. This gives rise to the question of why medical professionals participate in such medical meetings and whether participation is motivated by other factors.

Taking part in CME enterprises so heavily funded by commercial investigators threatens the ethical underpinnings of medical professionalism (Brennan *et al*., 2006; Vassilas *et al*., 2006; Fletcher, 2008). It places CME providers and academicians in the dubious situation of being paid, directly or indirectly, by the commercial manufacturers about which they lecture. At the same time, health professionals often find themselves in a position of obligation to the drug companies who fund CME, since these companies offer them free food and small gifts. Their ability to make independent and ethical decisions regarding their patients might thus be compromised (Fletcher, 2008), even though, according to the GMC, physicians

should not allow themselves to be influenced by incentives to prescribe one drug over another, as this would undermine the trust patients place in their doctors.

2.4.3.2 Hospitality and gifts

The GMC stipulates that in dealing with pharmaceutical firms, physicians cannot allow gifts or inducements from commercial companies to bias their clinical judgement. In 'Good Practice in Prescribing Medicines', 2008, the GMC states:

> "You must act in your patients' best interests when making referrals and when providing or arranging treatment or care. You must not ask for or accept any inducement, gift or hospitality which may affect or be seen to affect the way you prescribe for, treat, or refer patients" (p: 5).

Physicians see pharmaceutical representatives frequently and attend industry-sponsored CME courses, but deny the possibility that industry-sponsored CME events and trips have an impact on their practice (Vassilas *et al*., 2006; Jibson, 2006; Squires, 1993). In contrast, several researchers argue that the perception of physicians is imprecise, raising the concern that physicians may not be aware of the potential commercial bias, and concealing the impact of such generosity on the part of pharmaceutical marketers (Cervero *et al*., 2008; Pisacane, 2008; Vassilas *et al*., 2006).

Commercial companies' contributions might come in different forms, including 'speakers' tours', which are very popular in the Middle East (Beshyah *et al*., 2012). Drug companies usually arrange a social event associated with the medical meeting; providing food is an additional approach that pharmaceutical marketers adopt to build a relationship with physicians. The provision of meals increases attendance, creates a discussion atmosphere among attendees (Schaffer, 2000), and makes people receptive to new information (Vassilas *et al*., 2006). Companies also donate gifts. Vassilas *et al*. (2006) point out that, although the gifts' commercial value may be small, the acceptance of a gift influences the recipient, and even though some think

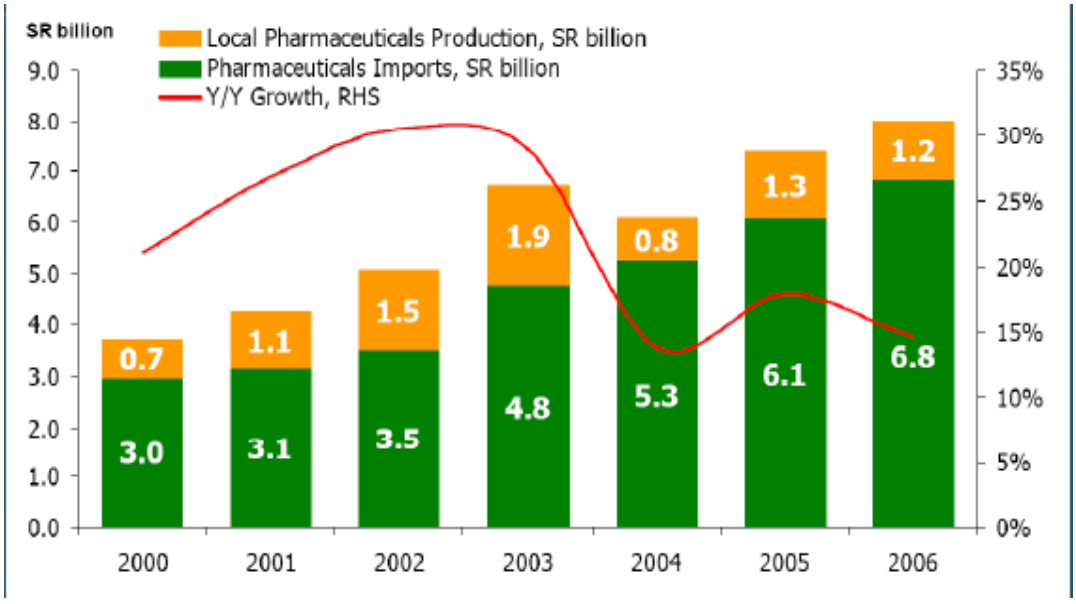
that it does not have any impact on doctors, regularly receiving small gifts and hospitality will almost certainly be at the expense of patients' well-being (Vassilas *et al*., 2006). Finally, Schaffer (2000) raises the question, if the industry pays for travel, lodging, gifts, food and all the other personal expenses of doctors attending a CME event: "Just whose activity is this, anyway?" (p: 121).

The next part will explore this problem in a specific location, Saudi Arabia.

2.4.3.3 Pharmaceutical industry involvement in CME in Saudi Arabia

The Saudi Arabian health care sector is growing astronomically (for details see chapter 4). The government's high level of expenditure on health care and on various large-scale projects all over the country has led also to growth in the pharmaceutical industry. The Saudi drug market exceeds 5 billion Riyals in size, with an annual growth rate of 10.2 per cent (*Al-Hayat Saudi Daily*, 2011). Figure 2-2 shows the increase in pharmaceutical industry expenditure for the period 2000 to 2006.

Figure 2-2 Percentage growth of the pharmaceutical industry in Saudi Arabia (2000 to 2006)



Source: Saudi health care services sector review in focus report (Dec. 2007)

Local drug factories have been recently established, but account for only 15 per cent of the Saudi pharmaceutical market. The health sector imports the remaining 85 per cent of the total market demand (Barrage *et al*., 2007). In the face of this shortage of local production, the Saudi health care market presents a lucrative opportunity for several major multinational pharmaceutical firms and foreign investors.

Recently, the practice of medicine in the country has been characterised by the close relationship between doctors and pharmaceutical firms. There is very limited literature available on the involvement of drug companies in continuing medical education in the Kingdom, or on how much commercial companies actually contribute. However, owing to the huge investment of the pharmaceutical industry in marketing and advertising in Saudi Arabia, their pervasive presence at medical conferences is very obvious.

In 2011, the *Al-Hayat Saudi Daily* published reports of interviews conducted with some pharmaceutical company sales representatives, in which the representatives clearly stated that pharmacists and representatives of pharmaceutical companies are following the goal of their companies, which is to promote the company and its products to attain certain ratios of sales. They clarified that the goal of pharmaceutical companies is to achieve 80 per cent profit, depending on the ability of the pharmacist or sales representative, starting with 10.000 and going up to 1 million Riyals. Depending on the company's power and the size of its products, the market, and the pharmacist's distribution ability, the pharmacist's average share of the drug sales commission is S.R.1600 (≈ £270) per month.

Furthermore, the *Al-Hayat Saudi Daily* (2011) stated that there are 15,000 pharmacists in the public and private sectors in Saudi Arabia. Pharmacists and sales representatives have estimated the average value of commissions earned by pharmaceutical companies in Saudi Arabia from the promotion of medicine and medical products to particular agencies at up to 90 million riyals a year (≈ £35m).

Some representatives have disclosed shocking information, confessing to having visited doctors in order to persuade them to prescribe their company's products, offering them luxury gifts, such as watches and pens etc. They stated that sometimes it is necessary to invite a group of doctors and pharmacists for lunch or dinner at a five-star hotel in order to convince them to prescribe a drug or product, and that some doctors ask for compensation (including laptops, cell phones or paid trips) for cooperating with them and for continuing to prescribe particular medicines or introducing new ones, while others prefer to receive a percentage of the sale (*Al-Hayat Saudi Daily*, 2011).

Furthermore, Al-Awad (2011), a pharmacist and researcher, highlights the fact that the absence of health regulations has resulted in some of the major pharmaceutical companies in the Kingdom giving pharmacists and commercial company representatives enormous commissions (between 1 and 10 per cent of the wholesale cost) if they market a particular product to the consumer, with no consideration for consumer benefit in terms of an appropriate price or how the drug is helping the patient. . Awad adds that some doctors in Saudi Arabia act contrary to their professional ethics, taking commission from medicine distributors, and changing the type of medicine they have been prescribing for a particular illness after coming to an agreement with the distributor.

The *Al-Hayat Saudi Daily* (2011) also reported that another major problem in the Kingdom is monopoly in the pharmaceuticals market. The industry is dominated by five powerful groups that control the market and demand large percentages of the drug companies' profits for selling their drugs.

In summary, the concern expressed in the literature is that the pharmaceutical industry's support of accredited medical education might be causing conflicts of interest - between doctors' obligations to patient care and the desire of commercial drug companies to sell their products. Pisacane (2008) wonders if, as numerous

studies suggest, financial support by the pharmaceutical industry has an effect on doctors' decision making, what would this effect be if the industry sponsored half the CME events? The possible risks of commercial involvement in CME could include its potential effect on the content of CME, and on doctors' prescribing behaviour.

2.4.3.4 Effect on content of CME

The influence of pharmaceutical marketing in medicine is a major subject of debate in the literature. However, to date, there have been no objective studies that connect pharmaceutical funding with bias occurring in the content of postgraduate medical education and activities. This claim has thus not been proven (Cervero *et al*., 2008; Lexchin, 1993). In addition, doctors always assert that commercial companies have no effect on determining programme content (Orlowski *et al*., 1992; Squires, 1993). However, unease about the CME industry is growing (Richards, 1998). Some criticise the too close relationship between physicians and the pharmaceutical industry, as they believe it could influence which topics are selected for the programmes, and also influence doctors' judgement in prescribing in diverse ways in the interests of commerce (Wazana, 2000; Davis, 2004; Pisacane, 2008).

Opponents of using funds provided by drug and device manufacturers point out that, despite the fact that the pharmaceutical industry has established its own guidelines for sponsorship of CME (Beshyah *et al*., 2012), efforts to keep CME free of commercial bias have not been successful (Brenann *et al*., 2006; DeAngelis *et al*., 2008; Macy, 2007; Steinbrook, 2008; Blumenthal, 2004; Cervero *et al*., 2008). For instance, Fletcher (2008) reports that in the US, the Senate Finance Committee examined commercial donations for CME over two years, concluding that, in spite of efforts to control improper commercial influences, it was still possible for providers of CME to accommodate the interests of commercial companies sponsoring the events, and for these companies to influence the events to encourage sales of their products, thus

companies could still target their financial sponsorship towards programmes likely to promote sales of their products. Hence, the assumptions are that such donations risk altering the educational content and that they invite bias, regardless of formal requirements that the potential for bias be controlled (Fletcher, 2008; Beshyah *et al*., 2012).

Some argue that professionals involved in academic health centres could easily design topics for programmes that reflect the interests of drug companies in order to ensure the continuation of their funding, regardless of ethical guidelines that state content should be free from pharmaceutical company influence (Lexchin, 1993; Fletcher, 2008; Beshyah *et al*., 2012).

Doctors always claim that commercial drugs have no effect on determining programme content. However, unease about the CME industry is growing. Some criticise physicians-pharmaceutical industry too close relationship, as it could influence topics and prescription. Opponents point out that, despite the establishment of pharmaceutical guidelines, efforts to control improper commercial influences have not been successful.

2.4.3.5 Effect on doctors' prescribing behaviour

In this section, several studies which have addressed the impact of commercially sponsored CME on physicians' prescribing practices are reviewed.

Wazana (2000) conducted a comprehensive review of the literature on this subject. She reports two CME studies that examined the impact of the drug industry's support on physicians' prescribing habits. An old study by Bowman *et al.* (1988) revealed that doctors who had attended CME events sponsored by a particular drug company tended to prescribe that company's drugs at a higher rate than they had done before attending the events. The second study, conducted by Orlowski *et al.*

(1992), concluded that the sponsor's drugs were prescribed at a higher rate if the pharmaceutical company concerned paid for the doctors' conference trips.

Similarly, in his doctoral thesis Greenwood (1989) surveyed 332 physicians in England and found that sales representatives did influence doctors' behaviour: 77 per cent of physicians favoured the commercially promoted drug without regard to its scientific merit. Three other products promoted by drug companies were also favoured by 55 per cent, 28 per cent and 13 per cent of physicians respectively. In addition, Schaffer (2000) reported a study that was published in *USA Today*. The results of this study revealed that the sponsorship of CME by a particular drug company resulted in that company's drugs being prescribed two and a half to three times more often than others.

Orlowski *et al.* (1992) examined a different aspect of sponsorship, studying the impact on 10 physicians of having their trips to attend two symposia paid for in full by a particular drug company, over a 22-month period from 1987 to 1989. . The symposia took place in a luxury resort and the content was about the company's drugs. The study tracked the usage of two drugs pre- and post-sponsorship, concluding that all-inclusive trips were linked to a major increase in the prescription of both drugs in one of the hospitals surveyed.

On the other hand, two studies obtained findings that conflict with those of the studies mentioned above. Rutledge *et al.*'s (2003) survey of 622 hospital physicians and 515 general practitioners in the US showed that 87 per cent of the former and 85 per cent of the latter denied being influenced by drug companies. Katz *et al.* (2002) studied 19 primary care conferences sponsored by drug companies that took place in Scotland between 1995 and 2001, looking for bias in favour of the drug companies. The authors found that in each symposium at least 85 per cent of participants reported freedom from industry bias. These studies may demonstrate the ability of physicians to come to balanced decisions, and that involvement in commercially

supported events has no effect on practice; on the other hand, perhaps what they demonstrate is the power of denial and self-delusion, and/or the limitations of self-report. However, other researchers argue that, although doctors are in denial about the effect on their prescribing practice, their ability to make independent decisions can be affected imperceptibly (Cervero *et al*., 2008; Pisacane, 2008; Vassilas *et al*., 2006; Orlowski *et al*., 1992; Squires, 1993). Katz *et al*. (2002) insist that there is an impact by commercial finance, stating: "An important unanswered question is the extent to which medical education and communication companies and CME sponsored functions are free from commercial influence" (p: 53).

On the other hand, some researchers have expressed reservations concerning the results of studies that indicate an increase in the prescription rates of drugs produced by companies who sponsor CME events. They argue that sponsored CME events might enlighten physicians regarding more effective use of the drug (Schaffer, 2000), and physicians argue that the prescribed drug is licensed and has the same efficacy as other drugs. However, the concern over whether drug prescription might be influenced by funding from commercial drug companies rather than concern for patients is high (Vassilas *et al*., 2006).

This section addressed several studies that explored the impact of commercially sponsored CME on physicians' prescribing practices. Four studies presented in the section and concluded that doctors who had attended CME events sponsored by a particular drug company tended to prescribe that company's drugs at a higher rate than they had done before attending the events. On the other hand, the section also presented two studies obtained findings that conflict with these prior studies. The authors reported freedom from industry bias. These studies may demonstrate that involvement in commercially supported events has no effect on practice; or, it is the power of denial. Furthermore, other researchers argue that doctors' ability to make independent decisions can be affected imperceptibly.

In response to criticisms outlined above, educationalists conclude that academic health centres should look for alternative sources of financial support to those provided by the commercial bodies. This issue is examined in the following section.

2.4.3.6 Proposals to reduce the risk of commercial bias

CME providers

Academic health centres are responsible for reducing the influence of industry; for instance, CME programmes must be finalised before any commercial funding is sought and commercial employees should not be involved in planning the scientific aspects of a meeting (Beshyah *et al*., 2012). Members of hospital faculty should be prohibited from serving as speakers on behalf of pharmaceuticals or medical device manufacturers and from being paid by industry (Fletcher, 2008). In a further effort to avoid pharmaceutical bias, speakers should not refer to the labels of drugs or health products (Beshyah *et al*., 2012).

Furthermore, the issue of using commercial resources to finance CME has divided researchers into two groups, some seeing industry funding as acceptable but only under certain conditions, and others calling for the prohibition of all forms of commercial funding.

CME financing

Possible alternative sources of funding for CME include:

Non-commercial funding: CME events are developed and delivered by a variety of organisations, including professional associations, hospitals and universities (Beshyah *et al*., 2012). Fletcher (2008) strongly recommends that the authority to provide CME should be limited to accredited organisations with programmes accredited by non-profit making professional bodies. Some researchers emphasise the need to eliminate commercial support for CME programmes (Waud, 1992; Fletcher, 2008; Beshyah *et al*., 2012), and for CME providers to seek non-drug

company related sponsors or individual sponsors. Fletcher (2008) suggests that commercial support for CME should be withdrawn for, for instance, a period of five years. Researchers suggest two ways of securing non-commercially sponsored CME:

Establish a national fund

To avoid health professionals having any direct contact with commercial companies, Pisacane (2008) suggests creating a national fund to which companies could contribute. A scientific committee would decide which medical meetings needed to be supported and all health professionals would receive the same opportunities to participate in the events, not just physicians.

Doctors pay for their education

The literature shows that doctors are willing to pay reasonable fees for their continuing education (Pisacane, 2008). This method would also oblige physicians to attend events, as some doctors do not take 'free lunch and no financial cost' meetings seriously, because they distrust their quality (Pisacane, 2008).

Shared funding with commercial companies: Several researchers doubt the feasibility of complete separation, as both parties need to work together (Jibson, 2006). Currently the industry supports about one-half of the costs of CME. It is unlikely that this amount of support will just disappear all of a sudden. Brody (2009) calls for rearranging the present relationship between CME providers and the industry. Abbasi *et al*. (2003) suggest that physicians should maintain some distance between themselves and the drug industry for their own benefit and, most importantly, for the benefit of patients. Others put forward yet more recommendations including clear guideline to specify the nature of the relationship between the commercial companies and the CME providers (Vassilas *et al*., 2006), concerted efforts to invite multiple sponsors to events (Schaffer, 2000), not allowing commercial supporters' representatives to be present when they are developing the

content of the activity (Jibson, 2006; Schaffer, 2000) and finally, ensuring all financial arrangements are transparent and comprehensive (Jibson, 2006).

The section stressed that CME programmes must be finalised before any commercial funding is sought in order to reduce risk of commercial companies influence, it also represented two perspectives with regard to using commercial resources to finance CME. Some researchers accept industry fund but they call for rearranging the present too close relationship between CME providers and the industry. The others call for the prohibition of all forms of commercial funding, and provide possible alternative sources of funding for CME include seeking non-drug company related sponsors, establishing a national fund to which companies could contribute, and obliging doctors pay for their education.

2.5 Summary

CME is a fundamental learning process that forms an integral aspect of the medical profession worldwide; the chapter discussed several issues that are related to KSA in comparison to what is mostly literature from the West. The chapter described the contributions of continuing medical education (CME) as a major facilitator of acquiring new skills and knowledge and changing performance of health professionals. It emphasised the individual's responsibility to sustain proficiency throughout his or her career. It highlighted the importance of physicians pursuing education after graduation, and definitions of CME and categories of CME courses were presented. It has provided an insight into the common trends in CME internationally, including revalidation and re-certification. It also explained forces confronting CME. Three key principles that have been proposed for CME in the future were then described: namely, self-directed learning, interactive learning, and learning within learning institutions.

This chapter attempted to answer the question: Does CME work? And, what sort of medical meetings are successful interventions? The movement of CME towards

(CPD) was also highlighted. Finally, the involvement of the pharmaceutical industry in supporting CME was discussed, detailing the conflicts of interest and potential complications, and presenting some proposals regarding how to reduce the possibility of commercial influence over the medical profession.

In the following chapter, Health care System of Saudi Arabia is examined in detail.

Chapter 3 Health care System of Saudi Arabia

Overview

This chapter provides an introduction to the organisation of the Saudi Arabian health care system. The structure, facilities, manpower, budget and development of the system are described, with particular emphasis on area which has given rise to substantial debate among health care researchers in the Kingdom.

The Saudi Arabian health system is ranked 26th of 191 countries worldwide and second among Arab countries (WHO, 1997), based on performance (Al-Yousuf *et al*., 2002). Canada, Australia, the United States and New Zealand are ranked 30th, 32nd, 37th and 41st respectively (Albejaidi, 2010).

Saudi Arabia is pursuing the goal of providing a universal health care system to cover the entire population. Currently, the government provides 80 per cent of all hospital services and delivers these services through a number of government agencies. The largest supplier is the Ministry of Health (MOH), which is responsible for administering approximately 62 per cent of the health services. The MOH provides preventive, curative and rehabilitative services. Another 18 per cent of the services are provided by more than ten government agencies, including the National Guard, the Ministry of Defence and Aviation, the Ministry of the Interior, university hospitals and several other ministries. These agencies provide primary, secondary and advanced levels of health care facilities directly to members of their staff. The remaining 20 per cent of the services are provided by the private sector (Mobaraki *et al*., 2010; Al-Rabeeah *et al*., 2009; Walston *et al*., 2008; Aldossary *et al*., 2008).

3.1 History of health care

The first available documentation on the history of modern health care services in Saudi Arabia dates back to 1949, and indicates the presence of 111 doctors and fewer than 100 hospital beds (Sebai *et al*., 2001; Al-Rabeeah, 2003; Tumulty, 2001). In June

1951, the MOH was established as the first organised health service for preventive care. The MOH, together with the Saudi ARAMCO oil company and the World Health Organisation (WHO), launched the first campaign against malaria in the country. The health system developed slowly until the mid-1960s, but in the period 1965-1985, a rapid expansion took place (Al-Yousuf *et al*., 2002; Al-Rabeeah *et al*., 2009; Sebai *et al*., 2001).

In the 1970s and 1980s, the services became primarily curative and were delivered by a network of hospitals and dispensaries. The preventive care services were later enhanced by the issuance of the 1980 ministerial decree that led to the establishment of health centres, guided by the WHO slogan 'Health for All'. The MOH's main objective in the early 1990s was to deliver primary care through primary health care centres (Al-Yousuf *et al*., 2002; Al-Rabeeah *et al*., 2009).

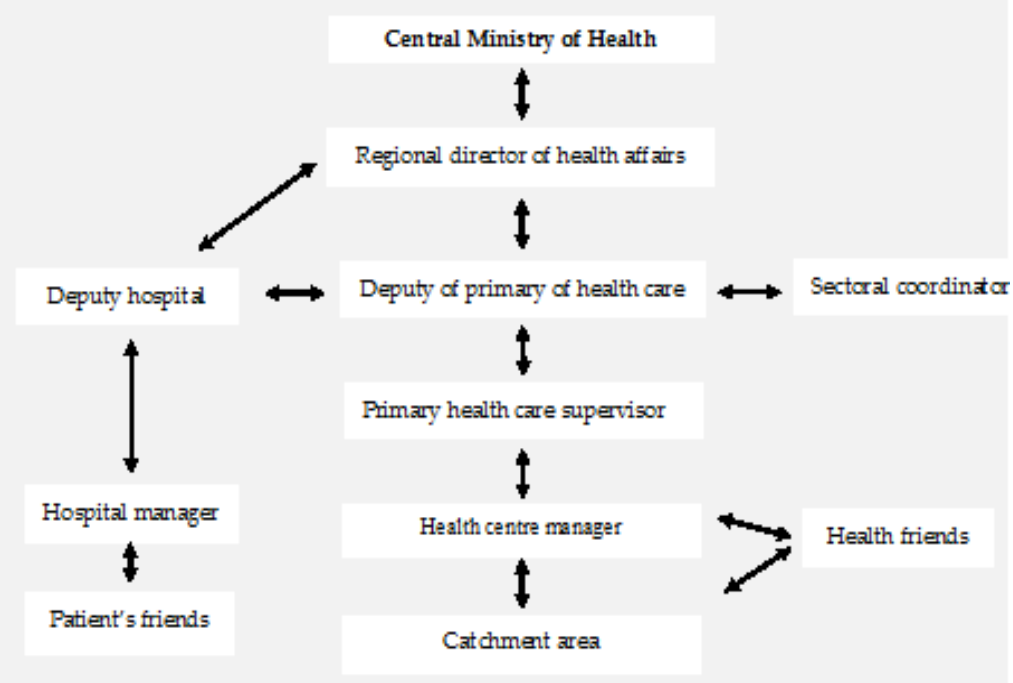
Recently, great strides have been recorded in the development of the health services. Official MOH statistics showed far-reaching changes in health care facilities. The number reached 2,427 PHC centres and 408 hospitals around the country (Ministry of Health Statistical Yearbook, 2009). This considerable expansion was the result of the increased MOH budget allocated for health care sector. (Health care budget is discussed later on in this chapter).

3.2 Organisation and management of the health system

Currently, government services are provided by more than ten agencies, headed by the Ministry of Health (MOH). The MOH is responsible for running the country's health system and is responsible for planning, managing, financing, directing and regulating the entire health care sector. There are 13 health regions, each led by a Regional Director General of Health Services who is directly responsible to the Deputy Minister of Health for Executive Affairs. As illustrated in **Error! Reference ource not found.,** each Regional Health Directorate has a number of health sections. Each Health Section Supervisor oversees at least one general hospital and several

health centres, school health services and health offices, and the private health sector for that section. The policies, plans and programmes of the MOH are implemented through this structure.

Figure 3-1 The organisation of the Saudi health care system



Source: Al-Yousuf *et al*., 2002.

3.3 Delivery of health services in Saudi Arabia

As previously mentioned there are three main health care providers in the country:

1. The main government sector (MOH).
2. The other government sector.
3. The private sector.

The breakdown of facilities is illustrated next.

3.3.1 The main government sector (MOH)

The MOH is the biggest supplier of health care, providing 62 per cent of all health care services (Walston *et al*., 2008; Mobaraki *et al*., 2010; Al-Shaikh, 2006; Aldossary *et*

al., 2008). The sector provides a three-tier health care service, consisting of primary, secondary and tertiary services, through health centres, general hospitals and specialist hospitals.

Health centres

Primary health care (PHC) is provided through a network of health care centres distributed throughout the Kingdom. The number of primary health centres rose from 519 in 1970 to 1,786 in 2001 **(**Marghalani, 2006), to a total of 2,427 health care centres countrywide in 2009. On average, each centre provides health services to approximately 12,000 people (Ministry of Health Statistical Yearbook, 2009). They essentially provide promotional, preventive, curative and rehabilitative services (Al-Yousuf *et al*., 2002). The centres are closely linked with the local hospitals.

General hospitals

The number of MOH hospitals increased from 47 in 1970 to 191 in 2001 (Marghalani, 2006) and to 244 in 2009 (MOH Statistical Yearbook, 1987-2011).

Public hospitals are located in both large and small cities throughout the country, providing tertiary services for the entire population, and are linked through a referral system to specialist hospitals. A referral system was established in 1986 to improve coordination between primary care centres and hospitals (Al-Ahmadi *et al*., 2005); however, the system of referral among the different levels of services is still unclear. **Error! Reference source not found.** at the end of this section illustrates the eferral system among the providers.

Specialist hospitals

Specialist hospitals are located in the main cities and accept all citizens from referring general hospitals. They offer advanced, high quality specialist services such as transplants, cancer treatment and complicated surgery and diagnoses, and are staffed mainly by foreign doctors. The high standards of these hospitals have been

recognised by Western accreditation agencies, including the Central Board of Accreditation for Health care Institutions (CBAHI), the Joint Commission International (JCI), Accreditation Canada and the Australian Council on Health care Standards (ACHS), and they are considered as teaching institutions. Top specialist hospitals are King Khalid eye specialist hospital, and King Faisal specialist hospital.

3.3.2 Other government sector

The 'other' government sector provides 18 per cent of the health services in the country. This division is made up of several autonomous agencies primarily designed to serve their workforces and their families, and when the required service is lacking it is the responsibility of the MOH to provide it.

These advanced levels of health care facilities provide specialist curative services besides medical education and training programmes. This sector is made up of the grouped hospitals and health centre facilities of large multinational corporations such as the Saudi ARAMCO Oil Company and the Kingdom's universities (and affiliated teaching hospitals). In addition, the Saudi Arabian National Guard, Ministry of the Interior and the Ministry of Defence and Aviation provide health care for military personnel (Army, Navy and Air Force) (Al-Falieh *et al*., 2009; Walston *et al*., 2008; Al-Rabeeah *et al*., 2009; Aldossary *et al*., 2008). Military headquarter health care facilities are located in the main cities: Riyadh, Jeddah and Dammam, and are typically equipped with 400-650 beds (Al-Yousuf *et al*., 2002).

3.3.3 Private sector

The private health sector provides 20 per cent of all the health services in the country, and the number of hospitals and centres is increasing throughout the Kingdom. In 1997, the total number of private hospitals was 18 (Walston *et al*., 2008), jumping to 125 in 2009, employing 28 per cent of the nation's physicians and 19 per cent of its nurses, and providing approximately 21 per cent of all hospital beds (MOH Statistical Yearbook, 1987-2011; Walston *et al*., 2008; Al-Shaikh, 2006). Private

facilities are located mainly in the urban areas offering services ranging from basic to highly specialised. Table 3-1 lists the health service providers and the number of services they provide.

Table 3-1 Number of services provided by health care agencies in Saudi Arabia

Health care provider	Hospital	Health centre	Dispensaries	Medical complex
1. Ministry of Health (MOH)	**244**	**1925**		
2. Other governmental agencies:	**39**	**251**		
Ministry of the National Guard	4	27		
Ministry of the Interior	1	87		
Ministry of Defence and Aviation	25	132		
The Kingdom's universities	4			
The General Organisation for Social Insurance and General Presidency of Youth Welfare	1			
Aramco	1	5		
The Royal Commission for Jubail and Yanbu	1			
King Faisal Specialist Hospital	2			
3. Private sectors	**125**		**1152**	**457**

Source: (MOH Statistical Yearbook, 2009).

This section explained the organization of the health system in the Kingdom, which is divided into 13 health regions; it also described services and percentage of health services provided by the three health providers in the country: the main government sector (MOH), the other government sector, and the private sector.

3.4 Financing health care

Currently, the government dominates the health care sector in Saudi Arabia and it has placed increasing importance on the provision of health care for the population as a whole. Nearly all health care financing is allocated from government revenues. Some 70 per cent of government revenues are from sales of natural resources – mainly oil and gas (Al-Rabeeah *et al*., 2009; Al-Yousuf *et al*., 2002). The strong interrelationship between the budgets assigned to the health sector and oil prices that ultimately affect the national income, means that the continuous increase in oil prices leads directly to huge increases in the allocation of funds to the health sector (Al-Falieh *et al*., 2009; Walston *et al*., 2008).

The first national budget was issued in the year 1932, amounting to 9.6 million Saudi Riyals (≈ £1.6 million at current exchange rates), and the share approved for the health sector was 2.8 million Saudi Riyals (≈ £470,000 at current exchange rates) (Al-Rabeeah *et al*., 2009). The health budget was around 2.7 per cent of the national budget in 1975 and 1985, owing to an increase in the national budget resulting from the increase in oil revenues.

The budgetary provision for the MOH has continued to increase. The proportion increased to 11.6 per cent a year from 1999 to 2004 (Al-Shaikh, 2006). The MOH's portion of the Saudi budget was reduced to 5.6 per cent in 2008 (SR 25 billion ≈ £4.2 billion); however, the MOH's portion of the Saudi budget has increased by more than 100% since the first year it was allocated.

The government of Saudi Arabia continues to provide massive support for the health sector, and this spending is expected to grow to over SR 75 billion (≈ £12.5 billion) by 2016 (Ministry of Health Yearbook, 2009). Table 3-2 and Figure 3-2 show how much the government devoted to public spending on health over a five-year period.

Table 3-2 Budget appropriations for the MOH in relation to government budget, 2005 to 2009

Year	Government budget	Health budget in Saudi Riyal	% Percentage (As a proportion of government budget)
2005	280,000,000	16,870,750	6.0%
2006	335,000,000	19,683,700	5.9%
2007	380,000,000	22,808,200	6.0%
2008	450,000,000	25,220,000	5.6%
2009	475,000,000	29,518,700	6.2%

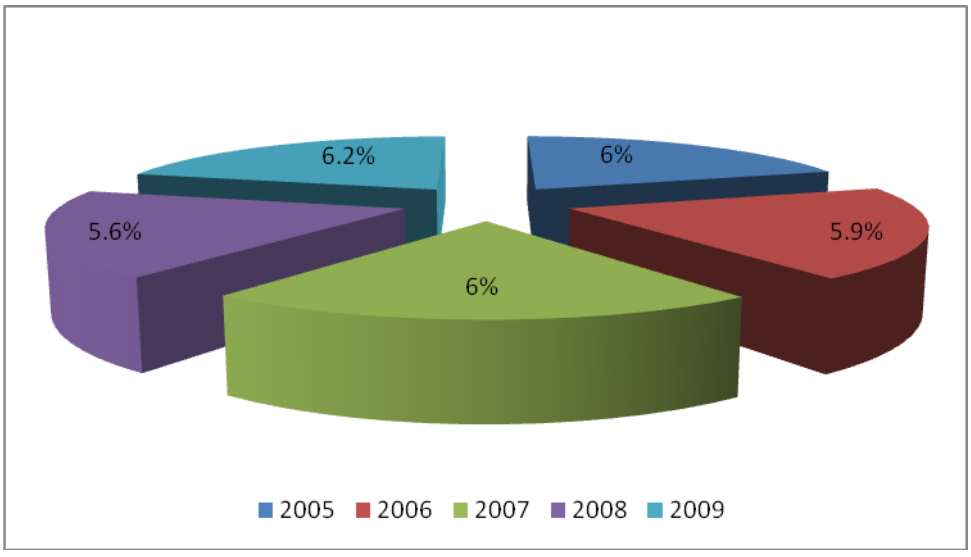
SR (£ 1 ≈ 6 SR).
Source: (MOH Statistical Yearbook, 2005-2009).

The basic mechanism for paying public providers is through budget transfers from the Ministry of Finance based on line item allocations for specific expense categories,

such as salaries, maintenance, new projects, etc. The prevailing pattern in financing governmental health services has not changed since the establishment of the health service. Appropriations are allocated in the national budget and these sums are distributed. Expenditure is managed directly from the centre (MOH division) to the periphery (Directorates and health facilities). However, it is difficult to obtain detailed knowledge about what is allocated to the governmental service sector and health facilities (Al-Rabeeah, 2003; Walston *et al*., 2008). (Effects of the lack of clarity in budget distribution will be detailed in chapter 7). Managers of health facilities are generally prohibited from switching funds across defined categories. There are also strong incentives to spend all allocated annual funds before the end of the financial year, as unspent funds are generally not retained by the governmental agency.

Hospitals under the 'other' government sector are funded through their respective ministry budgets and are considered as competitors for the budget assigned to the hospitals under the MOH (Walston *et al*., 2008; Al-Rabeeah *et al*., 2009; Al-Falieh *et al*., 2009).

Figure 3-2 Percentage of MOH budget in relation to government budget, 2005 to 2009



Source: (MOH Statistical Yearbook, 2005-2009).

As discussed above, the kingdom has invested heavily in health care, the Government recently spent an estimated 6.2% of its GDP on health sector, and this trend of growth is expected to continue during the forecast period.

3.5 Challenges confronting the Saudi health care system

The literature classifies the challenges of Saudi health care into five main categories:

- Quality of health services.
- Professional training.
- Administration.
- Workforce.

Several previous studies have investigated patient satisfaction regarding the quality of care provided and found that patients were generally satisfied with the quality of services (Mansour *et al*., 1996). One suggested reason for this is that people in Saudi Arabia are usually reluctant to complain about services and are prepared to accept lower standards of care (Mansour *et al*., 1996). This may be because there are no clear rules and regulations when it comes to patients' rights or how to deal with complaints, and as a result complaining may be seen as only a waste of time. However, recently, local media and new studies show an increase in patients' dissatisfaction with several aspects of the health services provided. This is owing to the growing awareness of the public, and therefore the MOH is facing pressure to provide better services (Al-Ahmadi *et al*., 2005).

While the lack of appropriate training is the main theme of this study, in this section I will discuss the administrative problems, the shortage of Saudi national health professionals and the potential obstacles presented by the high percentage of expatriates. The quality of care will not be discussed, however, since it is beyond the scope of this study.

3.5.1 Managerial challenges

3.5.1.1 Health policy

For the past eighty years, The distribution of resources, determination of priorities, negotiations, the establishing of regulations, planning and the setting up of health policies are all carried out by the health service's top management team of MOH (Al-Rabeeah et al., 2009; Sebai, 2011; Al-Ahmadi et al., 2005; Al-Rabeeah, 2003; Peter et al., 2007). However, the MOH suffers from an inability to rewrite and reform health policy. The planning procedures, vision, rules, regulations and strategy of the Ministry are all unclear (Alyemeni, 2010; Sebai, 2011; Al-Qarawi, 2011; Deghaither, 2006; Abdulla, 2011; Khursany, 2011). There is mounting evidence in support of the fact that the MOH lacks experienced management. The system is therefore tended to be high in centralism, nepotism, and bureaucracy (Al-Qarawi, 2011; Al-Ahmadi *et al*., 2005; Al-Falieh *et al*., 2009).

The system also lacks accountability (Al-Falieh *et al*., 2009), and financial procedures transparency (Islam, 2011) which led to another potential problem, that is corruption. Saudi Arabia ranked 57th among 183 countries in the Corruption Perceptions index 2011 (Transparency international, 2011). The organisation ranked 183 countries according to their perceived levels of public sector corruption. The countries were rated on a scale of 0 (highly corrupt) to 10 (very clean). Saudi Arabia scored 4.4. (Management issues will be explored in chapter 6).

3.5.1.2 Sectoral coordination

The diversity of health administration systems that exists in the Kingdom could be a source of enrichment; however, health care management by multiple providers actually has significant negative implications for the health care agenda in Saudi Arabia. Virtually no coordination exists among health provider agencies. Services are not uniform, and communication between administrators and policy makers at

the central, regional and local levels is poor (Al-Ahmadi *et al*., 2005; Al-Rabeeah, 2003; Alyemeni, 2010; Aboul-Enein, 2002).

The lack of National Health Information System (NHIS) has an effect on the accessing of appropriate data for policymaking and decision-making (Al-Yousuf *et al*., 2002; Mufti, 2000; Alyemeni, 2010) which in turn results in duplication of services and higher costs because expensive equipment is not shared, for instance. Sebai (2011) states that there is more medical equipment in Riyadh than there are in London, as a result of bad management and poor coordination. It also has been estimated that the cost of providing health services per capita is higher than in most developed countries owing to the lack of communication among health agencies (Mufti, 2000).

3.5.1.3 The doctor as physician-manager

There are no clear criteria for the selection of senior management positions. However, senior physicians occupy all the senior positions in the Kingdom's health care system. However, health service observers believe that the main reason for the deficiencies in health management is the physician-managers (Mourshed *et al*., 2006; Islam, 2011; Dayel, 2011; Khursany, 2011; Al-Ahdab, 2011; Sebai *et al*., 2001). They contend that doctor-managers lack the managerial skills needed to run health care facilities and that they are also deficient in particular capabilities, such as scientific, technical and human skills. Islam (2011) states:

> "A doctor has got no training in financial and administrative matters in our medical education system; no doctor can combine medicine and management and any doctor who works as a hospital manager is a failed doctor" (p: 4).

Furthermore, a very recent study conducted by Alshamary (2012), states that 90% of hospital managers in MOH throughout the Kingdom lack qualification in managerial trainings. 34 % among them hold undergraduate qualification degree,

and % 89 of managers believe experience and talent are more needed for the managerial posts than education degree.

The administrative issues are the core problems in the MOH, and these give rise to further problems. The section has highlighted the main managerial problem that can affect the performance of a health organisation include lack of managerial and administrative skills: this is a result of the fact that health professionals assign in leadership posts without having any proper qualifications or training in administration. The system is also characterised by being high in bureaucracy, centralisation, corruption, and unclear lines of accountability. Furthermore, the lack of NHIS resulting in health agencies fails to work in collaboration with one another and in a duplication of services.

3.5.2 Workforce

Health care services in Saudi Arabia have been developed rapidly. However, this expansion in facilities has not been matched by a growth in national manpower (Tumulty, 2001; El-Gilany *et al*., 2001; Al-Rabeeah *et al*., 2009). (Details are in chapter 4).

The country has a history of consistently low rates of staffing by Saudi nationals. The shortfall is compensated for by recruiting foreign expatriates of various nationalities, including those from North America, the United Kingdom and Australia, although the majority are recruited from India, the Philippines, South Africa, Malaysia and the Middle Eastern countries (Tumulty, 2001; Aboul-Enein, 2002; El-Gilany *et al*., 2001; Walston *et al*., 2008). For instance, in a 2002 study, 95 per cent of the nurses at King Faisal Specialist Hospital and Research Centre, Riyadh (KFSH & RC), which has a 560-bed capacity, were foreigners who came from over 40 different countries (Aboul-Enein, 2002).

The underlying goal of Saudisation has already been established within the health labour force to replace expatriates; this goal is seen to be good for both security and the economic stability of the country. I will define the main problems generated by the presence of such large numbers of foreign nationals next.

3.5.2.1 Challenges arising from the presence of non-Saudi workers

Expatriate services in the health fields are necessary in the present stage of Saudi Arabia's development. However, from a different standpoint, the presence of a very large number of expatriate workers in the health services also has some unsatisfactory consequences on the quality of care provided.

Many expatriates do not speak Arabic, the language of their patients, making communication with patients' difficult (Al-Yousuf *et al*., 2002; Mansour *et al*., 1996; Al-Ahmadi *et al*., 2005; Bajammal *et al*., 2009; El-Gilany *et al*., 2001; Aldossary *et al*., 2008; Vidyasagar *et al*., 2004). On the other hand, many adult Saudi patients, especially females, are poorly educated (Mobaraki *et al*., 2010), and thus there is a large educational gap between them and the physician (Gallagher *et al*., 1985; Al-Ahmadi *et al*., 2005; Al-Shahri, 2002). Some also criticise the lack of communication between cultural work groups (Tumulty, 2001). (Detailed of staff communication is in chapter 9)

In addition, the presence of a very large number of expatriate workers also poses a work performance issue; foreigners are at a disadvantage as care providers because of their relatively short-term stays (El-Gilany *et al*., 2001; Walston *et al*., 2008): the average tenure is just 2.3 years. Al-Ahmadi (2007) argues that the turnover among medical guest workers in the country is 37 per cent. Locally, Asian health workers have been accused of using Saudi hospitals merely as a transit location to get enough experience with patients and advanced equipment before going to work in Europe and Canada.

This rapid turnover creates two major problems. Firstly, the contribution and commitment to work during their short stay has been questioned; they are more likely to regard themselves as hired functionaries who follow rules to avoid criticising the system. They are less likely to be devoted to their work or take creative responsibility (Sebai, 1981; Gallagher *et al.*, 1985; El-Gilany *et al.*, 2001) (this issue will be explored in chapter 9). Second is the problem of resources in the hospitals. Dated and unused expensive medication and equipment are left after their departure, as new physicians will often require specific equipment as a condition of their contract (Walston *et al.*, 2008).

Finally, economic difficulties affect the Kingdom's medical labour market. Hence, very recently, the majority of the health workforce in the Kingdom is made up of expatriates, often from developing countries where the quality of care and learning programmes might be poor (diversity of staff trainings will be discussed in chapter 9).

In summary, the challenges which appear to be inherent in the context of a largely multinational expatriate workforce are cultural and language barriers, poor communication between the diverse professionals, the tendency of some foreign nationals to stay in the Kingdom for only a short time, resulting in a waste of resources and a lack of commitment, and the fact that the majority are from developing countries.

3.6 Summary

This chapter has presented an overview of the development of health care system in Saudi Arabia, and identified factors impeding the achievement of high performance. The chapter started by providing a brief account of the health care system and its early development. In the second section, the organisation and the three health delivery sectors: the MOH, other bodies in the government sector, and the private health sector were explained. Fourth, the government's massive financial support for

the health care sector was discussed. Finally, the chapter addressed the challenges confronting the health system; these include the lack of health managerial and administrative skills, which lead to the high bureaucratic and centralised system. Also, difficulties resulted from the presence of the high percentage of expatriates in the country's health care services include language barrier between staff and patients and lack of communication between the diverse professionals. Their average tenure that is just 2.3 years, created two main challenges, low work commitment, and waste of resources as new contracts entail new medication and equipment.

In the following chapter, medical education in the Kingdom is examined in detail.

Chapter 4 Medical education in Saudi Arabia

Introduction

In this chapter, the evolution of both undergraduate and postgraduate medical education in the Kingdom are discussed; then challenges that have recently arisen in professional training and continuing medical education are appraised.

Formal health services were first set up in 1951. Owing to limitations of resources, initially only very small clinics were opened, and these were later gradually converted into what are now highly sophisticated modern hospitals. This rapid growth in health services was accompanied by a planned 'Saudisation' process, which included the need to develop local manpower to run these services.

4.1 Historical background of medical education

In the past, the government offered foreign scholarships to high school graduates for studying medicine and health sciences abroad. This continued until 1969, when King Saud University, located in the city of Riyadh, established the first medical college in the Kingdom (Bajammal *et al*., 2008; Al-Falieh *et al*., 2009). The medical college was started in collaboration and affiliation with King's College of Medicine in London (Abdulwahab *et al*., 2009). Surprisingly, this was followed by the setting up of only three new medical colleges over the next thirty years (1967 to 1996). Table 4-1 below shows the years when the first four medical universities in the country were founded.

Table 4-1 Establishment of medical universities in Saudi Arabia

University	Year of establishment	Location/province
King Saud (KSU)	1969	Central
King Faisal (KFU)	1975	Eastern
King Abdul Aziz (KAU)	1975	Western
King Saud-Abha branch (KSU)	1981	Southern

Source: (Albar, 1999; Alshehri, 2001; Bajammal *et al*., 2008).

The limited capacity of the four colleges was insufficient to produce a sufficient number of the much-needed Saudi graduates. Moreover, the country's dependence upon expatriates to fill health professionals' posts came to a crisis point during the Gulf War of 1991. At that time, many expatriates decided to leave the country, and this indicated to policy makers at the MOH the urgent need to accelerate the training of Saudi health personnel in all fields (Aboul-Enein, 2002).

4.2 New medical universities

With the beginning of the new millennium, Saudi medical education started a new era. The Ministry of Higher Education (MOHE) took essential steps to develop medical education in the country further. Many universities and colleges were established (Table 4-2).

Table 4-2 Number of medical schools in the Kingdom

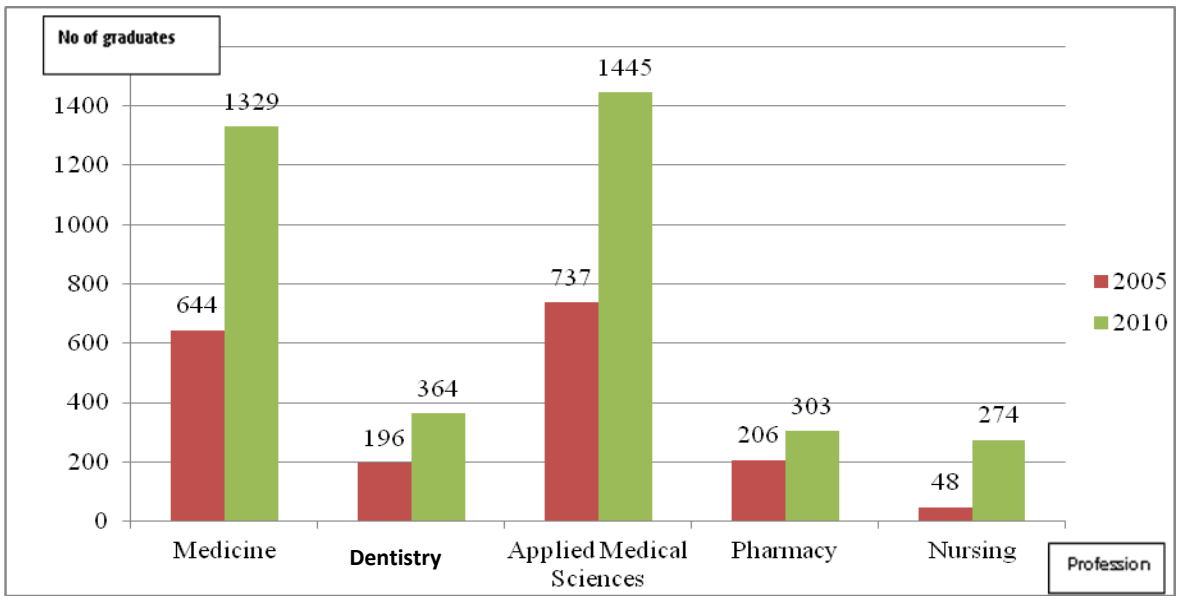
Medical schools (includes private)	Before 2000	After 2000	Total
Medicine	6	23	29
Dentistry	3	20	23
Pharmacy	1	18	19
Allied Medical Sciences	3	18	21
Nursing	1	8	9
Medical College (provide 3 years Diploma after High School)	15	17	32
Health Institution (provide 3 years Diploma after Middle School)	25	-21*	4

*Health Institutes were transformed into Health Colleges in 2007.
Source: (Ministry of Health Statistical Yearbook, 2009; Al-Falieh *et al*., 2009; Al-Rabeeah *et al*., 2009).

By 2010, the MOHE had licensed 25 new medical schools; this brought the total number of medical schools in Saudi Arabia to 29, the number of dental schools to 23 and the number of pharmacy institutions to 19, for a population of about 19 million.

The success in establishing new medical universities has been reflected by an increase in the number of graduates, as shown in Figure 4-1. The numbers increased fivefold from 2005 to 2010.

Figure 4-1 Growth in number of graduates in medical sciences (2005 to 2010)



Source: (MOHE Statistical Yearbook, 2009; Ministry of Health Statistical Yearbook, 2005-2010; Al-Falieh *et al*., 2009; Al-Rabeeah *et al*., 2009).

The previous section described the slow development of medical education during the three last decades before the establishment of 25 new medical universities in short time after the year 2000. In the following section, I will examine education strategies of medical universities followed by discussing the challenges facing the progress of medical universities in the Kingdom.

4.3 Evaluation of universities educational strategies

Following the British system, the current selection criteria for admission to a medical college are based on high school grades and comprehensive exams in science subjects (Abdulwahab *et al*., 2009; Al-Faris *et al*., 2009; Abdulrahman, 2008).

Curricula, methods of teaching and assessment in medical faculties have been influenced by the British approach, since faculty deans and most of the teaching staff are British-trained. The current undergraduate medical education takes six years, followed by a one-year internship. Usually, the curriculum is divided into two parts;

basic sciences are taught during the first four years, followed by two years of clinical placement and ends with a final exam and a one-year mandatory internship.

The curricula in these medical schools consist of overcrowded courses dominated by the over-representation of some subjects, and the lack of certain subjects such as medical ethics, economics, communication skills and health management (Alshehri, 2001). The curricula do not allow for options to be taken by individual students or for elective modules (Abdulwahab *et al*., 2009; Shawky *et al*., 2001; Alshehri, 2001; Al-Hazimi *et al*., 2004; Al-Gindan *et al*., 2000; Abdulrahman, 2008).

The education system in the old established universities was influenced by new methodologies of medical education introduced during the 1980s. McMaster University, Maastricht University and Medical Education Centres in Dundee in Scotland and in New Zealand played major roles in introducing modern methods of education, such as integrated community and problem-based learning (PBL). In addition, returning Saudi doctors who had trained in Canada played a significant role as teachers in these medical faculties.

However, the rapid expansion in the number of medical schools exposed a shortage of qualified Saudi teachers. The schools were therefore staffed by foreign teachers mainly from developing countries such as Egypt, Sudan, Pakistan and India, countries that followed the traditional system of teaching, which therefore in turn heavily influenced the current Saudi medical education system. The teaching methodology is deeply teacher-oriented. It relies heavily on the use of lectures, tutorials, and practical classes with few open discussions and problem solving sessions (Al-Gindan *et al*., 2000; Bajammal *et al*., 2008; Alshehri, 2001; Al-Hazimi et al., 2004; Abdulwahab *et al*., 2009; Shawky *et al*., 2001; Sebai *et al*., 2001). As a result, the students are simply a passive receiver and limit themselves to the subject matter relevant to the final exam. Consequently, students only target short-term success rather than the acquisition of lifelong knowledge (Shawky *et al*., 2001; Al-Faris *et al*.,

2006; Al-Hazimi *et al*., 2004; Abdulrahman, 2008). Self-learning is not emphasised and research activities are limited. Saudi students use the library less for learning than the medical students of any other country (Shawky *et al*., 2001; Al-Hazimi *et al*., 2004; Al-Gindan *et al*., 2000; Milaat *et al*., 1994).

The number of undergraduates has increased, as shown in Figure 4-1. However, the output is far from satisfactory compared to that of the UK and North America (Abdulrahman, 2008).

This section evaluated multiple aspects include the traditional medical education system that still prevails after more than 30 years, the classical curricula and educational environment, and the passive methods of teaching that are adversely affecting the academic achievements of students.

For the past ten years, Saudi scholars, medical academicians and universities deans have been involved in debates concerning undergraduate medical education and what can be expected from newly qualified medical graduates. These debates have been prompted by the following factors:

4.3.1 Rapid increase in number of medical universities

The large number of new medical universities has resulted in the qualification of many new medical graduates during the last decade. However, researchers reveal that the primary focus was on quantity, and that no clear measures were taken to ensure quality. In other words, the established medical schools are unable to provide good quality education owing to inadequate training, staffing and resources (Al-Faris *et al*., 2006).

4.3.2 Global changes in curriculum and educational strategies

Nowadays, health care delivery is undergoing radical changes and reforms. Curricula and methods of teaching must be frequently updated (Al-Gindan *et al*.,

2000; Al-Faris *et al*., 2006; Sebai *et al*., 2001; Aboul-Enein, 2002). A periodic review of medical schools in the Kingdom has indicated that some reforms of the content of the curriculum, including the format and methods of teaching, have been introduced (Al-Gindan *et al*., 2000). Current educational approaches vary among different medical schools, ranging from a hybrid of integrated systems to still following the classical discipline-based curriculum (Telmesani *et al*., 2010; Al-Falieh *et al*., 2009; Abdulrahman, 2008).

Recently, debate on reforms in learning approaches has intensified. Advocates of reform argue that the educational process in the country should move away from the traditional methods to a more comprehensive programme including more practical than theoretical education. The reformists have suggested an innovative approach that is more student-focused, promoting self-learning, and community-oriented, with PBL based on Best Evidence Medical Education (BEME) (Al-Faris *et al*., 2006; Telmesani *et al*., 2010; Al-Shehri, 2001).

4.3.3 Medical teachers

The other persistent challenge to the updating of medical education involves the availability of qualified, experienced, competent and sincerely motivated teaching and research staff.

Many colleges in the Third World that have tried to apply modern methods have failed owing to a shortage of competent medical teachers with the necessary skills for the job. Schools have relied heavily on the performance of teaching staff who have come from classical schools without being given any re-training, any access to recent information resources or any opportunity to improve their teaching and research skills (Al-Faris *et al*., 2006; Al-Falieh *et al*., 2009).

In conclusion, the education system needs to be modified to meet future health demands. The curriculum is of course at the heart of the system. However, medical

education is a multidisciplinary process that has a broader scope. The reforms should not be directed towards changes in the curriculum alone, but the entire educational mechanism should be taken into account, in order completely to restructure the undergraduate education system. This will require perceptiveness, enthusiasm and productivity on the part of the administrative and teaching staff and also that of the students.

In the following section, I discuss the development of postgraduate medical education and the growth of continuing medical education in the Kingdom, which accompanied the establishment of medical societies and associations.

4.4 Postgraduate medical education

Forty- years ago, the only opportunities for post-graduation training were in the UK, Canada or the USA (Al-Falieh *et al*., 2009). Saudi women favoured Egypt for medical education owing to the low cost, the fact that it is geographically closer and the existence of separate medical schools for women (Vidyasagar *et al*., 2004).

At this point, the Ministry of Higher Education decided to set up local postgraduate training programmes in the Kingdom based on the modern pattern of North American fellowships. The medical faculties took the initiative and worked together to establish what became known as the 'Saudi Fellowships'. They accepted this fellowship scheme as a postgraduate programme. Thus, local medical graduates, especially women who could not study abroad, found an opportunity to join these fellowships. These fellowships were expanded to cover more specialities. Now 'Saudi Fellowships' are offered in all health specialities (Al-Falieh *et al*., 2009).

4.5 Training and development of manpower

During the last decade, the Kingdom has witnessed an enormous development in continuing medical education, including the establishment of the Saudi Commission for Health Specialities, the organisation of large numbers of educational activities,

meetings, symposia and conferences, the establishment of numerous medical education departments, and professional societies and associations.

4.5.1 Continuing medical education

During the mid-1970s, many Saudi doctors returned home after completing their fellowship training. In addition, the first batch of local medical students was completing graduation. Large numbers of medical faculties were opened during this period. At this time, Saudi doctors made the first effective contribution to the continuing medical education in the country. They organised the first 'Annual Saudi Conference' in 1975, which was a scientific and medical meeting covering all medical specialities. After 1975, the conference was held every year. However, in 1982 the higher authorities in the Ministry of Health put a stop to it for organisational reasons (Al-Rabeeah *et al*., 2009). (The effect of health stakeholders on CME is discussed in chapter 6).

With rapid advances in knowledge and new technologies being introduced in the medical field, several health organisations accepted responsibility for planning and delivering their own CME. Medical education departments were established in the Middle East from the 1980s onwards (Davis *et al*., 2005), partly in response to a variety of pressures from, for instance, both members of the public and the media, but also in order to deal with higher expectations concerning health care and the increased complexity of scope and further specialisation of medicine.

Most Saudi Arabian hospitals have shown great interest in education and have responded by setting up departments of medical education. Usually, a medical department is headed by a physician and staffed by several nurses and administrators. Staff development courses target audiences from single or multiple specialities. The learning programme is a combination of formal courses in CPR, ACLS, ATLS, APLS, and the use of English, computer skills, quality assurance and medical terminology. It also includes 'journal club', 'telemedicine', big national or

international medical events and on-the-job learning. The availability of these activities varies among different medical education departments throughout the country.

4.5.2 Saudi commission for health specialities (SCHS)

The SCHS is an independent scientific body that was established in 1993 by a Royal Decree. This corporate entity has multiple roles. The main focus of the mission of the SCHS includes the provision, supervision and accreditation of residency programmes and postgraduate training programmes in various health fields offered by both government and private sectors.

In 1995, the SCHS also assumed responsibility for the process of classifying and registering all health care professionals. The Commission holds records for each health professional, and registration with the Commission became necessary in order to practise medicine in the Kingdom (Abdulwahab et al., 2009; Bajammal et al., 2008). The required numbers of CME hours per year are shown in Table 4-3. However, there has been marked criticism of the accreditation system in respect of the fact that approval of credit hours has not been linked to the relevance of these hours to the scientific basis and clinical practice of the doctor's speciality (Al-Shehri et al., 2001).

Table 4-3 Number of CME hours required per profession annually

Category	Number of Hours
Physicians and Dentists	30
Pharmacists	20
Nurses	15
Technicians	10
Applied medicine specialists	10-20 (According to speciality)

Source: (SCHS Classification of Academic Certification, 2007).

In 2007, a Royal Decree was issued nominating the Saudi Commission for Health Specialities as the sole licensing authority able to authorise medical conferences on

health and scientific educational activities with approved CME hours. Subsequently, as per SCHS records, the number of approved activities in different regions of the Kingdom began to increase steadily.

The Commission finances itself by its own resources, generated by charging a service fee. It covers a big country where the internet and email are not widely available (fax and telephone are the principal means of communication). However, it is now one of the most important health commissions in the Arab world. At present, it supervises all postgraduate and fellowship activities in the Kingdom (Al-Falieh *et al*., 2009).

4.5.3 Medical societies

The number of Saudi medical societies has dramatically increased since the implementation of professional registration and the development of a close relationship between registration and CME. Eighty medical societies have been established during the last 20 years, and most of these have been organised within the last five years. Saudi universities and the Saudi Commission for Health Specialities were the original founders of these medical societies. Most societies hold periodic seminars and training courses for their members in their respective specialities. A remarkable increase in the number of scientific activities organised by these societies, either alone or in close cooperation with other health facilities, has also been noted (SCHS Annual Report, 1999-2011).

In this section, it has been shown that the country has experienced enormous developments in continuing medical education, including the establishment of the SCHS, the arranging of numerous educational activities, and the establishment of medical education departments, eighty medical societies. Despite all these developments, however, there are several challenges confronting CME in the Kingdom. These are discussed in the following section.

4.6 Challenges encounter continuing medical education

The following section will highlight some of the main challenges to the effectiveness of CME in Saudi hospitals as reported in the literature. These challenges can be categorised into three different types: administrative, workforce, and learning resources.

4.6.1 Administrative

Coordinating among multiple CME providers

Almost all developed countries have many sources of provision of CME. These include health care organisations, health associations, professional societies, universities, private pharmaceutical and health-related companies. Such a multiplicity of CME providers can be seen as a positive feature.

On the other hand, the SCHS has tried to regulate CME, as demonstrated in its recently published document on accreditation and the monitoring of CME (SCFHS, 2012). The key recommendations include the proposals that CME should be arranged by only officially licensed organisations, that the activity should have the prior approval of the SCHS, and that the time, venue, objective and target audience must be clearly specified. Despite this, the Commission is having a great deal of difficulty in convincing all parties involved in the health service to accept its role and in obtaining their full support and cooperation, and therefore there is a definite lack of coordination among these central and regional CME providers (Al-Shehri et al., 2008).

The current situation is likely to generate duplication of CME (Al-Shehri *et al*., 2008; Albar, 1999). For instance, in 2006, one of the five governmental hospitals in Riyadh conducted more than 1,600 professional meetings. Assuming the same is the case for the other four similar hospitals, about 8,000 annual CME programmes were provided in just one city in the country. This does not include programmes provided

by the private sector. Thus, an enormous number of CME activities were recorded in one city alone (Al-Shehri *et al*., 2008). It is also important to note that the challenge is not related to the quantity of CME events. It would be worthwhile for the authorities concerned to consider putting a halt to what amounts to a waste of money and ensuring the optimum utilisation of available resources.

4.6.2 Workforce

Over the past 40 years, the educational infrastructure has been inadequate to produce a sufficient number of health professionals. For instance, in 1974, there were 2074 physicians in Saudi Arabia, of whom 1826, or 88 per cent, were foreign (Gallagher *et al.*, 1985).

Recent statistics show that in 2009, 22 per cent of the total number of physicians was Saudi nationals (Ministry of Health Statistical Yearbook, 2009). Nevertheless, the minor percentage increase in the number of Saudi national medical professionals in the last few years does not match the number of health sector personnel needed. The rate of Saudisation during the last 23 years did not exceed 10 per cent (Al-Falieh *et al.*, 2009). The government has acknowledged this situation and attempted to remedy it by actively seeking to create partnerships with leading educational institutions; the British Council, for instance, plays a vital role in forging links between the UK and Saudi Arabia and facilitates the invitation of health personnel to the Kingdom (Marghalani, 2006).

Moreover, since 2004 the Saudi government has been offering foreign scholarships to thousands of Saudi medical students for further training in medicine. As a result, large numbers of Saudi medical students are now studying in the USA, UK, Canada, Australia, New Zealand, France, Germany, Holland, Ireland, Austria, Poland, Slovakia, Pakistan, Malaysia, China and some Arab countries such as Egypt, Jordan and Bahrain (Bajammal *et al*., 2008).

Despite all these efforts, the country's dependence on expatriates to fill health professional posts will continue for a long time. The demand cannot be easily met by Saudi nationals owing to the limited number of Saudi graduates from medical educational institutions at present and as predicted in the near future (Mufti, 2000; El-Gilany *et al.*, 2001; Sebai *et al.*, 2001; Al-Shaikh, 2006; Al-faleih *et al.*, 2009). An official estimate was that there would be 15226 Saudi doctors by the year 2020, representing only 32 per cent of the total Saudi health workforce (Sebai *et al.*, 2001). Table 4-4 shows the number of graduates per year, while Table 4-5 presents an estimation of the future workforce requirements.

Table 4-4 Number of graduates per speciality in each year, 2003 - 2009

Profession	Number of graduates per year						
	2003	2004	2005	2006	2007	2008	2009
Physician	741	564	644	837	812	1094	1284
Dentist	144	196	166	192	221	217	217
Pharmacist	209	275	206	202	202	345	399
Allied medical personnel	350	576	737	919	959	1594	974
Nursing	NA	37	48	98	151	212	326

Source: (Ministry of Health Statistical Yearbook, 2003 - 2009; Al-Faleih *et al.*, 2009; Al-Rabeeah *et al.*, 2009).

Table 4-5 Estimated figures of future needs per speciality

Profession	Estimated number by year									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Physician	47160	48485	49849	51253	52698	54185	55716	57292	58915	60586
Dentist	9341	9687	10048	10424	10817	11228	11665	12123	12603	13104
Pharmacist	13626	13626	13626	13626	13779	14088	14404	14727	15057	15395
Allied medical personnel	22907	24303	25822	27477	29288	33572	35771	38989	42205	45844
Nursing	50152	52066	54065	56154	58339	60625	63547	66652	69955	73474

Source: (Al-Faleih *et al.*, 2009).

The mixture of expertise and cultures among medical staff is regarded as a healthy sign and it enriches the learning programme. However, it has given education planners additional responsibilities to design activities that accommodate the diversity of the health professionals' needs.

4.6.3 Learning resources

Health care in the Kingdom lacks necessary learning resources, such as the internet (Al-Ahmadi *et al*., 2005), and a competent medical library (Khudair and Cooke 2008).

This compromises professionals' ability to stay abreast of new knowledge and technical advances (Al-Ahmadi *et al*., 2005; Tumulty, 2001; Al-Shehri *et al*., 2001). (the issue of library is discussed in detail in chapter 8).

The lack of resources is also adversely affecting health research in the Kingdom (Tumulty, 2001), and it is not possible for health authorities to conduct research using only personnel resources. The Ministry of Finance is not offering health care workers any financial incentives to engage in research (Al-Falieh *et al*., 2009).

This section explained that the steady growth in health services along with the high number of recruited foreign expatriates gave rise to demands for more local doctors. The limited number of local universities, however, makes it impossible to increase student numbers. The Kingdom has responded to these pressures by establishing new medical colleges, and increased investment in broad scholarships and training courses, despite that, the Kingdom's reliance on professional expatriates will continue for a long time. The section also discussed the challenges face growth of CME in the country such as the limited supervision role of SCHS and the shortage of competent medical libraries.

4.7 Summary

This chapter has reviewed the development of medical education in Saudi Arabia. It described the limited number of the three medical universities in the country for the last decades before the establishment of 25 new medical universities after the year 2000. It evaluated the education strategies include the passive methods of teaching, and the classical curricula on the academic achievements. Factors could affect the outcome of the rapid increase in number of universities without enough preparation, traditional educational strategies and curriculum, and shortage of competent medical teachers were discussed in the third section. The chapter discussed the development of postgraduate medical education and the growth of continuing medical education, which involved setting up departments of medical education and associations such as (SCHS). It moved on to highlight the barriers currently hindering the education of health professionals; lack of coordinating among CME providers, diversity of staff, and shortage of learning resources.

In the following chapter, the methodology used in this research is described.

Chapter 5 Methodology

Introduction

This chapter sets out the guiding theoretical and methodological framework that was selected to underpin this study. It initially maps out the selected methods in relation to an ethnography perspective. This is covered in the first section that addresses the epistemological underpinnings of the study. The chapter will then move in the second section onto a more practical account of the study, this takes into consideration; accessing organisations, an account of the sampling and recruitment procedures used; the practicalities of carrying out the interviews, survey, and the fieldwork; and finally the analysis of the data is explained in the third section. The chapter ends by highlighting the issues of reliability and validity and early considerations of ethics that further influenced the research design.

Methodologically, this study adopts a mixed methods approach consistent with the ethnography perspective. The explicit use of both qualitative and quantitative methods in a single study is found widely in many studies in the field of social sciences (Maxwell & Loomis, 2003). Numerous advantages of integrating qualitative and quantitative methods in the same study have been identified, a combination of strategies can be used to answer the research questions in more depth (Tashakkori & Teddlie, 2003; Bryman, 1995) and limit threats to validity (Creswell; 2007). Furthermore, studies using integrated approaches can enrich current knowledge by 'filling in the gap' in a way that studies implementing single methods are unable to do (Dey, 1993; Bryman, 1995).

Taking into consideration such advantages of mixed methods, this study aimedto give the study participants an opportunity to voice their own opinions of their learning programme in their specific context. The particular methods of this research were semi-structured interviews, questionnaire, and observational fieldwork. My

purpose was "to grasp the native's point of view in relation to life, to realize his vision of his world" (Malinowski, 1922: 5, quoted in De Laine, 2000: 105). A theoretical ethnography was generated from the fieldwork and consequently the approach was used to provide a rationale and meanings to the study findings and for people to attribute to their experiences, because an essential component of ethnography is applying the "meaning of actions and events to the people we seek to understand" (Spradley, 1980: 5).

5.1 Methodological approaches

A variety of methods exists within naturalistic research and within health care research particularly. Here, I will explain the underlying reasons for selecting a mixed methods approach informed by ethnography as the methodology for this research.

Mixed methods studies have a baffling number of choices of approach (Creswell, 2007). The strategy adopted for collecting data in this study was the 'QUAL →quan → qual' model, in other words, the 'qualitative, quantitative, qualitative' sandwich. This design indicates a qualitative priority-driven approach followed by a quantitative approach and then again by a qualitative approach (Morse, 2003; Onwuegbuzie & Teddlie, 2003).

Qualitative methods can rightly be regarded as an 'exploratory' approach to conducting social investigations (Bryman, 1995; Allan, 1993; Miles & Huberman, 1994; Creswell, 2007). This study commenced with semi structured interviews, exploring the participants' views of contexts, wherein I became familiar with the individuals who were to be the subjects of the research (Brewer, 2004), basic facts, and the problems involved. This phase assisted me to develop a picture of '*what*' was happening on the ground, to examine other sources of information, to learn new ideas for developing the research questions, and to formulate strategies and a logical approach for conducting the research process that was to come.

One major feature of qualitative data is their richness (Bryman, 1995) which subsequently facilitated the development of the questionnaire. In the quantitative approach, the design of data collection and analysis was decided in advance, that is, exactly how and what ought to be investigated. One advantage of utilising the quantitative method was that it produced a large amount of data within a short duration. While the qualitative approach enriched the data, the data originated from the survey is depicted not only as hard and precise, but also as reliable, considering that the data have been collected by systematic procedures (Bryman, 1995; Dey, 1993). The two strategies complemented each other, and enabled triangulation emphasising both discovery and confirmation (Dey, 1993).

To add the sense of depth and holism, the study needed to go far beyond '*what'* or *'how many'* to *'how'* and *'why'* things occur as they do (Miles & Huberman, 1994; Currall & Towler, 2003; Bryman, 1995; Dey, 1993). Therefore, the next descriptive phase focused on *'how'*: 'how did it happen?' to understand what is going on in a particular social setting (Miles & Huberman, 1994). A naturalistic approach was therefore deemed appropriate in order to see, describe and interpret events, actions, norms, values etc. through the eyes of the informants who are being studied. This entailed becoming fully acquainted with the participants involved in the context and fostered a relationship (Bryman, 1995; Allan, 1993; Miles & Huberman, 1994; Creswell, 2007).

A characteristic of naturalistic design is flexibility, and qualitative research derives much of its strength from this feature (Bryman, 1995; Allan, 1993). At this later stage of the fieldwork, I utilised different types of data sources, namely observation, document collection and field notes. Multiple sources of evidence and multiple perspectives adopted to interpret a single set of information enhanced the validity of the study conclusions. According to Fetterman (1989) triangulation is a more common method in research as it "improves the quality of data and the accuracy of ethnographic findings" (p: 95).

Furthermore, any qualitative researcher seeks to go beyond pure description to "understand and explain coherently why things occur as they do" (Miles & Huberman, 1994: 90), and generate a theory (Miles & Huberman, 1994; Dey, 1993). In this naturalistic enquiry, an inductive approach was utilised to infer a theory. This identified it as being concerned with the *discovery* of theory rather than the *verification* of theory (Bryman, 1995; Hammersley & Atkinson, 2007; Miles & Huberman, 1994). My preference was for a strategy that did not impose a potentially alien framework on the research subjects since it might not reflect individuals' opinions about what was going on and what was essential. In the sense that I wanted to develop my knowledge from listening to and observing the behaviour employed by the informants, to begin the process of model formulation. In line with this, as a field worker, I was in a better position to observe the links between events and social activities, and to investigate people's understanding of the factors that form such associations (Bryman, 1995; Tashakkori & Teddlie, 2003). The ethnography emerged during the fieldwork process and analytic induction. Fetterman (1998) states that ethnography can be conducted in the field without an underlying hypothesis.

Explanation cannot be based on casual events (Dey, 1993); rather it was built on exploration and description. The progression of this study from description to an accurate explanation involved obtaining information about the characteristics of a particular individual, situation and group, justifying a type of behaviour or belief, identifying the key variables, and formalising the fundamental elements of the story (Miles & Huberman, 1994).

In brief, the purpose of this study, to gain the perspectives of people in the field and capture their social world, steered the selection of the methodology. Both qualitative and quantitative approaches were found useful and were used sequentially. The previous section also outlined the descriptive and the explorative design of the study. For example, the descriptive investigation revealed that there is scant

consideration given to health professionals' lifelong learning in Saudi Arabia, whereas the exploration focused on understanding why Saudis overlook professional learning development.

As noted earlier, this study used an ethnographic perspective and this will now be explained in the next section.

5.2 Ethnography

People use ethnography in their routines, in their daily lives, to make sense of their surroundings and of the behaviour of others (Wolcott, 1999; Hammersley & Atkinson, 2007; Fetterman, 1998), and perhaps even of their own actions (Hammersley & Atkinson, 2007). The underlying purpose of this ethnographic approach was therefore to generate true accounts of social phenomena (Hammersley & Atkinson, 2007), and to describe precisely what is "implicit within a culture" (Germain, cited in Streubert & Carpenter, 1999: 151).

Selecting ethnography for this study involved investigating the social status and cultural practices of the particular society. Fetterman (1998) states that, "Ethnographers need to know about both cultural behaviour and knowledge to describe a culture or subculture adequately" (p: 17). Culture cannot be directly observed, according to Spradley (1979), "The knowledge that people have learned as members of a group cannot be observed directly" (p: 7). However, there was plenty to draw upon in order to generate the inferences about cultural influence in the form of customs, norms, or shared and learned patterns of believing and behaving characteristic of individuals (Wolcott, 1999).

It was therefore necessary for me, as a researcher, to be immersed in the culture in order to understand the people under study in terms of what they were doing and saying, how they interacted with each other, their ideas and beliefs, and the meanings they ascribed to their actions (Wolcott, 1999; Spradley, 1979; Fetterman,

1998). In addition, the natural setting in which the research is carried out provides researchers "with the view of the world as it is, not as they wish it to be" (Streubert & Carpenter, 1999: 150).

A distinctive characteristic of ethnography is to go beyond observation to examine the meaning of that behaviour and those actions (Spradley, 1979). Streubert and Carpenter (1999) state that "human behaviour has meaning and ethnography is one way to discover that meaning" (p: 150).

Furthermore, Creswell (2007) and Fetterman (1998) emphasise the fact that the most important requirement for interpreting the findings of an ethnographic approach is that they can be interpreted from the native's, and not from the researcher's, point of view. The emic approach is the insider's or native perspective on the system or organization. Wolcott (1999) states that, "the emic approach seeks to get to the heart of the matter" (p: 137). I tended to use the emic view to bring forth and report people's voices through utilising the informants' own words and their understanding of their reality (Fetterman, 1998; Wolcott, 1999; Currall & Towler, 2003).

In the other hand, etic data are 'raw' data (Currall & Towler, 2003), which are external but it was relevant to the group's history, economy, religion, surroundings and politics (Fetterman, 1998). I therefore collected data by grounding the work in an emic understanding of the situation and group first, and afterwards I tried to make sense of what I have collected by using the etic perspective to assist in providing a full description and explanation of the data collected from the settings (Fetterman, 1998).

This study has an insider-outsider status; I was more interested in relying on emically-derived primary data and making the etic perspective secondary in the analysis, Fetterman (1998) states that using both views gives the big picture more credibility and reflects the whole picture. In addition, "When emic and etic

approaches are combined, researchers can conduct both exploratory and confirmatory research" (Currall & Towler, 2003: 522).

5.3 Justification of methodology

The selection of study methodology should depend on its appropriateness and relevance to the core purpose of explaining and interpreting what is going on in the study setting (Glaser, 1978). I decided to use mixed qualitative and quantitative methods and also to draw upon an ethnographic approach for the following reasons:

- I am familiar with both medical and health care work in the KSA, and the settings were accessible to me, owing to my prolonged period of work (7 years).
- I was able to obtain cooperative participants, and information could be obtained from many different sources within the field settings.
- I sought to achieve more depth by this strategy than could be achieved by using a single method such as questionnaires.
- Ethnographers need to interact with and fully comprehend the culture of the context they intend to study. In this study, I was examining my native society and culture; I am familiar with the society's heritage and the strong influence of culture on work in the social environment, which facilitated my involvement in the work environment and gave me a deeper understanding of the situations. However, I tried to enter the fieldwork with an open mind to enable me to admit new ideas, experiences and thoughts. According to Fetterman (1998), having an open mind in the field "Allows the ethnographer to explore rich, untapped sources of data not mapped out in the research design" (p: 2).
- I was able to work as an observer in the field and become engaged with the people under study, thereby acquiring a description of the culture and an understanding of the activities that comprise it.

On the other hand, although observation is often one of the primary methods used by ethnographers (Hammersley & Atkinson, 2007; De Laine, 1997), it could not be the primary method in this study because of the various challenges confronting a female researcher in Saudi Arabia. There will obviously be problems if a female ethnographer wishes to observe male professionals, resulting from Saudi cultural restrictions (e.g., a woman is not allowed to be alone with a man). Any over-sensitivity on my part to such social restrictions would have paralysed my work, and placed unnecessary obstacles in the way of data collection and analysis. I was respectful and courteous to the culture, but at the same time I tried to minimise the professionals' discomfort in order to get the best out of the fieldwork; however, direct participant observation, for instance, was limited, so a more general observation technique was applied, and as a result, there were undoubtedly things I could not observe. Also, the time limitation on the data collection process meant that I could not do as much observation as I would have liked; I spent 8 months in the KSA and then had to come back to the UK. (Details of challenges arising during the fieldwork will be presented along with the data collection methods in the following section).

This section has discussed the theoretical and methodological framework that was selected to underpin the research. It has explained the development of the mixed method design using semi-structured interviews, a survey questionnaire, and observational fieldwork, and the way in which the study was undertaken. This section has also described how the theoretical framework guided the practice, which adopted an inductive approach and generated the choice of the ethnographic perspective. Finally, the selection of the study methodology was justified.

5.4 Research Design and Process

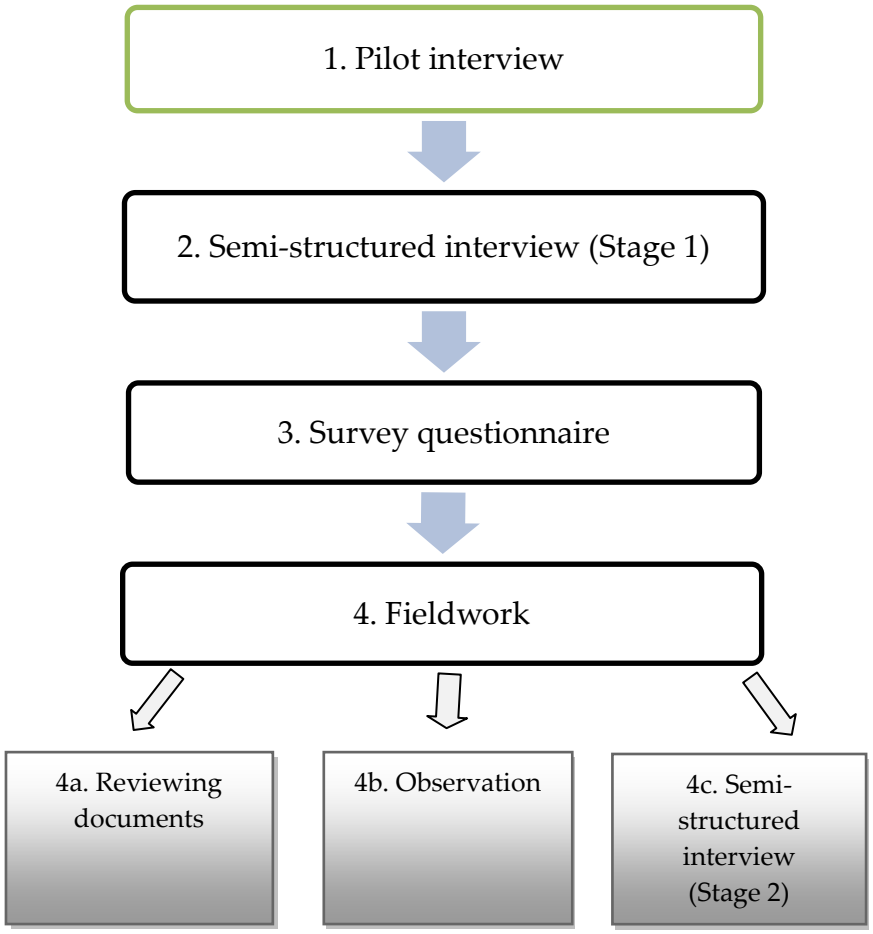
In the previous section, the methodology used to collect the data for the study was described and the reasons for adopting a mixed methods model were explained. In this section, the development of the research design is discussed in detail. Although the various steps in this design appear to be chronological, in fact all the tasks that formed part of the ethnographic phase were accomplished concurrently. I begin by describing the design of the study guide, moving through the sampling process, negotiation of access to sites and recruitment of participants, the way in which I carried out the semi-structured interviews, administered the questionnaires, and finally conducted the fieldwork.

5.4.1 Research design

The research design is viewed as a 'blueprint' or 'road map' that helps the researcher conceptualise each step of the study (Fetterman, 1998).

Qualitative research is not always orderly (Fetterman, 1998) and the process "is better represented by a spiral than a straight line" (Dey, 1993: 53). The current study might be viewed as sequential, but all the stages had to take place concurrently (Spradley, 1979). The activities of data collection, analysis and interpretation were iterative, and these components were integrated so that all parts interrelate (Dey, 1993; Onwuegbuzie & Teddlie, 2003; Creswell, 2007). The overall research methods are summarised in Figure 5-1 below. It involved pilot study, Semi-structured interview, questionnaires, and fieldwork.

Figure 5-1: The mixed methods model used for the study



5.4.1.1 Access to organisations

Typically, gaining access to the site of study is done through a gatekeeper (Creswell, 2007; De Laine, 2000; Hammersley & Atkinson, 2007). Gaining permission to enter a site can often be problematic. As De Laine (2004) states, "The main problem encountered when undertaking any research is often the access" (p: 40).

The process of obtaining permission from hospital Chief Executive Officers (CEOs) to conduct this study involved sending an official request to nine hospitals (a copy of the letter may be found in Appendix No. 1) along with the project proposal, in which details of the purpose of the study and what would be required of participants were set out. Around two months were spent following up the request, but no replies were received. This might have been owing to bureaucracy and the fact that most of the gatekeepers were unfamiliar with qualitative research.

Fetterman (1998) asserts that unfortunately the fieldworker cannot always find the best person to contact when attempting access; therefore, access to the research setting might be based on a bargaining strategy. Following the lack of response, I decided to negotiate entry with someone else, and this was done by talking directly to the directors of training and education departments at three hospitals where I had worked previously, and to sales managers at the pharmaceutical firms of pharmaceutical company A and J. These people performed a bridging role, providing access to the physical locations and introducing me to some medical chiefs.

The approach adopted fit with the customs of Saudi society, and was more effective than consulting people in the higher echelons of the organisations. This approach also ultimately resulted in a greater potential for rapport and interaction, because building trust and credibility with informants was easier, and one of the consequences of adopting this alternative approach was that many more doctors were interviewed than initially planned.

5.4.1.2 Sampling

In this section, the sampling procedure used in this research is described, followed by the development of a method used to select the research sites and the participants for the study.

Sample of hospitals

The sample consisted of three government-run hospitals in Saudi Arabia. The selected hospitals were public hospitals managed by different governmental sectors: military (n=1 and bed occupancy/ 400), specialist (n=1 and bed occupancy/ 600) and university (n=1 and bed occupancy/ 350).

In this section, I describe the strategy used to access the research sites; in the following section, the method of selecting participants for the study is described, and the approaches adopted to select two samples of interviewees are described in detail.

Sample of participants

Two different samples were recruited in different phases of the study. The sampling involved the following criteria and procedures:

The first sample

A judgemental approach was employed to the selection of samples from the populations. I relied on my own judgement to choose the most appropriate individuals from the units. My judgement was based on my previous experience in these hospitals. Fetterman (1989) states that qualitative researchers typically employ an informal technique like judgemental sampling, "wherever they can slip a foot in the door" (p: 43).

The selected individuals shared common factors: all of the health workers were representatives of continuing medical education with experience in planning and designing hospital learning programmes, were actively involved in the processes of the learning programmes, or had expressed strong views about professionals' education, and would therefore potentially provide useful responses for the study.

Through this sampling procedure, I recruited 33 interviewees. By the time I had reached this size of sample, I had reached saturation and felt more confident that there were adequate data to achieve the objective of the study. Any further information would just reinforce the data already obtained.

The selected group who fulfilled the desired criteria came from a range of medical and paramedical departments (e.g., physiotherapy, pharmacy and nursing) (Table 5-1). The majority were physicians from different specialities (n=25), some of whom

also held an additional managerial position or interest; for example, 4 were academics, 3 were in charge of medical education departments and 2 were directors of quality control departments.

Table 5-1 Number and speciality of the first phase sample

Profession	Number
Physician (4 were academics)	25
Nurse	3
Dentist	2
Pharmacist	2
Physiotherapist	1
Total	33

The second sampling

In a later phase of the study and during the fieldwork, my observations indicated the need for an additional sample of informants. The fieldwork had enabled me to become acquainted with all the librarians working in the 3 hospitals (n=11) and I later interviewed them, especially as they showed interest in participating in the study with a clear understanding of the subject of the research, and they helped you achieve the aim of the study. Because of their expertise and extensive experience of working in their positions, this strategy proved useful, in that it enabled me to gather data on the social aspects of the working environment from a different perspective.

This section has focussed on two aspects of the research process; the first was the negotiation approach used with the middle management to gain access to hospitals as a result of lack of CEOs' respond, which also influenced the choice of the research sites. Secondly, described the judgemental choice strategy that used to select the respondents.

5.4.2 Data collection

In this section, the methods employed to collect the data for the research are discussed in detail. The section is divided into four subsections. First, the data collection methods selected for use in the study are outlined; then each method - interviews, questionnaires and fieldwork - are described in turn.

An overview of the choice of methods

The data collection techniques deemed to be most appropriate for a study of this type were in-depth interviews and questionnaires, together with fieldwork. A chronology and brief description of these techniques are presented in the tables below include target, timeline, and total number of sample from each method and hospital. A more detailed discussion of each technique follows the table.

Table 5-2 Phases of data collection

Method	Target	Timeline	Total No. of sample	Hosp 1	Hosp 2	Hosp 3	Response rate	Activity
Pilot interview	Physicians	April 2008	2					By telephone Note taking
Interview (1)	Medical education rep.	May/June 2008	33	11	10	12		Tape recording Note taking
Questionnaire	Medical education rep.	August 2008	33	11	10	12	100%	Online survey

Table 5-3 Practices of fieldwork conducted from October 2008 through October 2009

Method	Period	Individuals involved	Method/ Daily	Activity	Frequently
Fieldwork	4 visits to Saudi Arabia/ 3 hospitals/ 8-months Hosp. 1= 3 months Hosp. 2= 2.5 months Hosp. 3 = 2.5 months	Medical education representatives Librarians and library users CME attendees Staff of medical education department Staff of finance department Commercial companies representatives	1. Observation 2. Reviewing documents	Attending hospital committee meetings	7 meetings
				Attending department education meetings	13 meetings
				Participating in organising CME workshops, courses etc	8 medical events
		Librarians	3. Interview (2)	Tape recording	11
					Hos 1 / Hos 2 / Hos 3
				Note taking	5 / 3 / 3

5.4.2.1 Interviewing

Pilot interview

A pilot phase is useful when interviewing in order to detect any vague, confusing questions, and to ensure the clarity and consistency of the questions for the intended audience (Fetterman, 1998). I carried out two pilot interviews by telephone from the UK before the final interviews were conducted in Saudi Arabia. The two informants, a Chief Executive Officer and a physician, from two different health care institutions, were interviewed individually by telephone as they were based in Saudi Arabia.

These interviewees were not part of the study, but assisted as critics of the interview questions.

To date, few studies have been published that explore the continuing medical education environment in Saudi Arabia; thus, the topics of the questions were formulated based on Western literature and on my experience of the area.

The objectives of the pilot interview were to:

- Explore the feasibility of the original study
- Identify the main areas of focus of the study
- Develop relevant lines of questioning
- Refine the data collection plan
- Estimate the amount of time needed to conduct an interview (Creswell, 2007).

Consequently, the questions were modified and then finalised prior to conducting the main interviews.

Interviews

Interviews are the most common method of data collection in qualitative research (King, 2004; Bryman, 1995; Allan, 1993; Johnson & Turner, 2003). One form of interview is semi-structured that will commonly have the following features: a low degree of structure, and a predominance of open questions (Kvale, 1983). The study utilised individual semi-structured interviews with the participants and I was aware that if a researcher wishes to obtain good data, there could be no such thing as a 'relationship-free' interview (Johnson & Turner, 2003; Jones, 1991; De Laine, 2000; Hammersley & Atkinson, 2007). "A key feature of the qualitative research interview method is the nature of the relationship between interviewer and interviewee" (King, 2004: 11). However, the Saudi community is quite distinctive in terms of the nature of the female-male relationship. In this respect, the interviews were bound to be something of a challenge, as they would bring me into closer contact with men

than Saudi tradition allows. There are always going to be difficulties when a Saudi woman researcher attempts to interview Saudi men in such a conservative and male-dominated society. Indeed, there was almost an air of embarrassment on their part, and I often approached participants with caution, wondering how they would react towards me. I found the first few minutes of each interview difficult, while I tried to establish some balance in my relationship with the interviewee - trying not to look at them in too friendly a way, while at the same time attempting to make them feel at ease so they could talk openly. Tone of voice, facial expressions, hand movements and bodily gestures were a clear concern, and I had to be very careful and pay particular attention to these aspects so that they would not be misinterpreted within the conservative Saudi Arabian context. Uneasiness on the part of the researcher can result in her obtaining poor data or not being permitted to access information, but I had to be mindful of how to gain the confidence of the Saudi informants and therefore their cooperation. First I had to get their respect on the basis of how they perceived the women-men relationship; for instance, I maintained a respectful distance between myself and the person being studied, minimised eye contact with the participant, made sure I was fully covered in terms of the way I was dressed, and took particular care with my bodily gestures and tone of voice.

It is assumed that participants will play an active part in shaping the interview process, rather than simply passively reacting to specific questions put by the interviewer (King, 2004; Fetterman, 1998). Therefore, I needed individuals who were not hesitant about speaking and who would thus provide adequate data (Creswell, 2007). Fetterman (1989), on the other hand, points out that it is also important to be aware of the preconceptions that individuals may hold, and of the fact that, if they are well informed, they may tend to force their ideas on the research. Professional women receive very little recognition in Saudi Arabia. Saudi women workers are stereotyped as being prone to quitting work, so some men do not take them or treat them seriously. For example, some of the men I was interviewing attempted to

control the interviews and advised me to alter the scope of my study to only include women**.** However, I tried to the best of my ability to overlook such behaviour and to continue pursuing my own agenda. De Laine (2000) states, "The conventional value-neutral observer might have no problem with having a different agenda to participants… but feminist researchers have found this much more difficult to accept" (p: 138).

The interview was a strategy of adopting the participants' perspective and seeing through the eyes of the interviewees. Kvale states the purpose of an interview as, "To see the research topic from the perspective of the interviewees and to understand how and why they come to have this particular perspective" (p: 176). Another factor I had to consider was the difficulty Saudi men have in admitting to a lack of knowledge, or to the possibility they may be the cause of a problem, since they feel this will make them lose face, especially in front of a woman, so although the participants in this study were well informed, it was important and indeed necessary for me to crosscheck the information supplied by the informants with observed practice.

Semi-structured interviews with the first sample

A group of 33 education representatives from the three hospitals were interviewed. Informants were asked a series of questions that were divided into topic areas: their education and experience background, the process of conducting medical courses, beliefs about the effectiveness of current learning programmes, factors viewed as contributing to the challenges encountered in such programmes, social relations at work and suggestions on how to improve the health professional learning programme (the interview questions may be found in Appendix No 2).

Setting of the interviews

The participants were encouraged to choose the location of their interview. Interviews were conducted in the privacy of their offices or in teaching classrooms at their hospital. This allowed them to talk relatively freely. The interviews ranged from 45 to 95 minutes in length, interviews were recorded and short notes were taken during the interviews to record the unspoken comments of the interviewees.

I was aware that it is important for interviewees to feel as relaxed as possible and to keep the flow of the conversation focused and uninterrupted (Creswell, 2007). However, some unforeseen challenges arose while I was conducting the interviews. Under Islamic rules, a woman and a man cannot meet alone in a private place, and the Saudi tradition has expanded this rule to include public and work places. For instance, a male physician cannot examine a female patient without the presence of his nurse and at least one of the patient's relatives. In my own life, I try whenever possible to avoid being restricted by this rule; hence the interviews usually starting by the participants trying to push this issue with me by suggesting that it would be a more convenient if I email them the questions instead of sitting and interviewing them in person, but when I explained my purpose of the research and the interview in particular, they asked either their expatriate secretary or nurse to stay in the office with us during the interview. When there was no third party available, prior to the interview they preferred to introduce me to some of their colleagues in the coffee room and explain the reason I was interviewing them, in order to preserve their image and reputation, which are vital issues in the Saudi culture, and they would then leave their office door ajar. However, all the offices were quiet and the presence of a third party did not appear to impinge on the interviewees' openness, since in all cases, they did not speak Arabic and their presence was common practice.

Digital recorder

Digital recording was utilised in order to record the interviews accurately, and leave me free to maintain the natural flow of conversation. One of the advantages of digital recorders is that they can effectively capture long verbatim quotes (Fetterman, 1998). However, problems were encountered since the study touched on topics that the informants thought were too sensitive to have recorded. Participants feared reprisals because they thought their voices would be recognised and that their opinions would be exposed to the view of the hospital administration, and that this would jeopardise their relationships with others at work. Another reason for their resistance lay in the cultural way of perceiving the issues: participants looked at the health institution as a whole, and feared that showing dissatisfaction could be seen to imply criticism of the main administrative personnel in person. Sometimes this could be a close colleague, someone from the same family tribe, or the administration might have recruited him directly without going through the long process of hospital employment. Their moral imperatives therefore demanded loyalty and allegiance to these people. Although I made it clear that information would not need to be passed on to the hospital administration, and that confidentiality was assured, I did not succeed in convincing them. Hence, I negotiated with them, suggesting that they upload recorded interviews from my digital recorder onto the hard drives of their own laptops and that I would delete them from my digital recorder immediately after they had done so. They eventually agreed to my proposal.

5.4.2.2 Questionnaire

Questionnaires are often an important component in mixed methods research (Johnson & Turner, 2003). It is typically carried out in the middle and final stages of the qualitative study (Fetterman, 1998). A questionnaire was used in the second phase of this study, following a preliminary analysis of the interviews. The

interviewees identified some factors that they thought were hindering the development of continuing medical education. Currall and Towler (2003) state that quantitative information can come from the interview data. Therefore, a self-completion questionnaire was administered and distributed to the same first group of the 33 interviewees.

Glastonbury and MacKean (1991) suggest that if a result from a survey group is sought, then a pre-coded answer block is essential, as it certainly speeds up the analysis process. The survey questions were pre-coded questions that have a list of answers from which the respondent is asked to rate factors they had previously identified as hindering the development of CME by means of rating scales (e.g., 1 to 5 point rating scales) (Johnson & Turner, 2003).

The questionnaires were distributed by email as I was in the UK at that time. The response rate was 100% after several follow-ups via email and telephone.

The questionnaire approach was adopted for the following reasons:

(i) The analysis of the interviewees' accounts suggested that the variables needed to be mapped out and introduced into the survey instruments; the dataset was enormous and full of the participants' thoughts, and the questionnaire would help to focus and direct the investigation.

(ii) Utilising a flexible approach and being open to the possibilities was seen as imperative in order to add credibility to the research, and the confirmation of the themes using a quantitative survey helped to increase the validity of the results (Onwuegbuzie & Teddlie, 2003; Fetterman, 1998).

(A copy of the questionnaires may be found in Appendix No 3).

5.4.2.3 Fieldwork

Fieldwork is the hallmark of ethnography and involves the investigator engaging for a long time in a natural context. It typically entails from six months to two or more years in the field (Fetterman, 1998). The fieldwork for the current study was conducted during four different visits to Saudi Arabia and over an eight-month period in total, from October 2008 to October 2009. It necessitated travelling to three different cities in the Kingdom; this, however, presented certain challenges, which needed to be considered. Restrictions on women travelling, staying alone in hotels, and driving, necessitated coordination with a male guardian who accompanied me for the entire period.

An essential task in the fieldwork was to provide a "description of the culture that answers the question' 'what is going on there?'" (Creswell, 2007: 12). Fetterman (1998) states that "The ethnographer's hike through the social and cultural wilderness begins with fieldwork" (p: 31). I became intimately familiar with the setting, with the aim of capturing the voices of the people who inhabited it, their normal actions and activities, the social meaning of these (Dey, 1993), "and what follows from it" (Hammersley & Atkinson, 2007: 7). I attempted to provide a 'thick' description and acquired an understanding of issues such as the following:

- What does culture mean to Saudi people in the work context?
- What role does culture play in their professional life?
- How does culture influence the health care environment and the CME field?

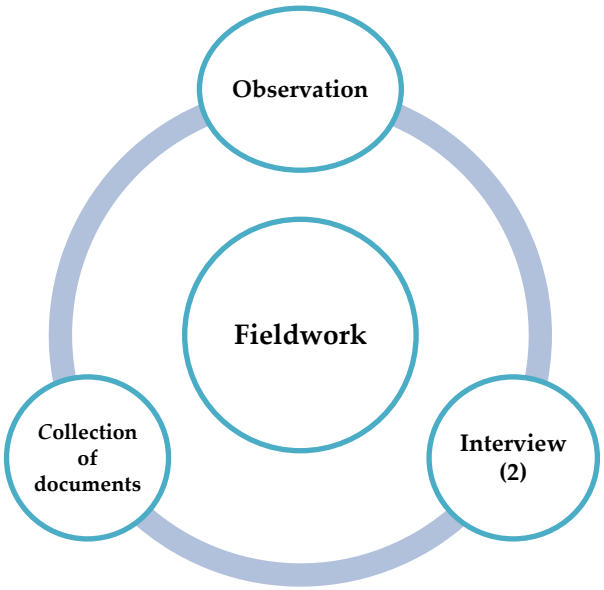
Furthermore, Foster (1996) suggests that ethnographers need to build relationships with informants "in order to facilitate access" (p: 70), but Jones (1991) argues that the extent of this possibility relies on virtue of shared gender identity, and race or ethnicity. In fact, the idea of developing friendships during the fieldwork was out of the question because I am a Saudi female; interestingly, if I had been a foreigner, the participants would have felt more at ease when being interviewed or observed;

foreigners are assumed to be ignorant of Saudi traditions; thus a male participant's reputation would not be at risk if Saudi people saw him sitting with a foreign female researcher.

People who participate in the research are human beings with concerns, intentions and problems, and my values and interests are not necessarily similar to those of the participants. For instance, a unique incident occurred when a doctor accused me of being paid by some agency in the West to interfere in Saudi affairs; he argued that such cooperation was against his principles. Even though I clarified this issue, he still refused to take part in the study.

Interviews as well as observing protocols appear to be the most popular forms of ethnographic data collection; yet many different sources of information were used to create a picture of the whole environment (Creswell, 2007). This study used various data collection strategies such as observation, questioning, collecting documents, collecting cultural data, and these are described below (Figure 5-2).

Figure 5-2 Tasks of fieldwork



Observation

Observation is an essential element of all ethnographic enquiries (De Laine, 1997; Hammersley & Atkinson, 2007; Fetterman, 1998; Spradley, 1979). I assumed the role of observer in this research; observation entailed observing particular events and activities, people, the environment, and the interaction among members of the culture-sharing group in their naturally occurring setting (Creswell, 2007; Spradley, 1980; Miles & Huberman, 1994; Brewer, 2004).

Furthermore, the objectives of observation include "involving the researcher participating directly in the setting, if not also the activities" (Brewer, 2004: 312). The process of observation involved attending several CME meetings, as shown in Table 5-3, I often accompanied educational representatives to meetings, where they first introduced me to the education team and explained my study and purpose. I then addressed key issues of confidentiality, privacy and anonymity, and offered to share responsibility for arranging their medical activities. I had been offered the opportunity to participate in arranging eight medical events at the three hospitals, including an international orthopaedic symposium and a medical surgical nursing symposium. I lived the experience of participating with the informants in arranging their CME activities "in order to gather accurate, truthful information" (De Laine, 1997: 142), to ensure that I covered all angles and obtained an overall picture of the group and their work (Fetterman, 1998).

The close involvement with the individuals in the field enabled me to comprehend their beliefs and expectations (Fetterman, 1989). Observation also served as a tool to validate or sometimes even contradict information obtained through the interviews, rather than just relying on what was said (De Laine, 1997; Hammersley & Atkinson, 2007; Fetterman, 1998; Spradley, 1979). For instance, two heads of education complained that departments do not cooperate enough with the education department when arranging CME; however; I found that their department files do

not include any rules or regulations stipulating the responsibilities of other departments (such as the Finance or Public Relations department) to organise CME activities and events.

Creswell (2007) and Fetterman (1998) state that ethnography should involve extended periods of observation. The daily observation of the current study ranged from 2.5 to 3 months in each hospital. This immersion in the context for long periods meant that people in the field became accustomed to my presence while they were performing their daily activities and thus reduced reactivity on their part (Foster, 1996). I usually started my daily observation in the education department to check on the upcoming education activities for different medical departments, and between meetings and rounds, I visited the libraries frequently. There was no need to obtain informant consent; however, the participants in this research were informed verbally about the study and were fully aware of my purposes in the context.

During observation, the watching and listening stage changed from wide descriptive observation to my obtaining a much more specific understanding of the meaning of what I had observed. The study proceeded to raise questions and I obtained data from formal and casual conversations as well.

Most of the individuals involved had little or no knowledge of qualitative research; some were more concerned about my motives than with the research itself. I was initially suspected of being a spy for the hospital administration and my intention was perceived to be to make an undercover evaluation of their performance. A few people tried to use me to convey problems they were facing to CEOs, such as complaints about heads of department or about workload.

I proceeded with caution; gaining the confidence of reluctant informants was a priority in order to secure findings and increase validity. Trusting relationships were constructed gradually by constantly reassuring the participants of my commitment

to anonymity and confidentiality. I kept an official letter from my supervisor that was meant to be sent to CEOs requesting their permission to access hospitals, and I often passed it to individuals in meetings or to department heads in order to access documents. I also always carried my Newcastle University ID, which inspired some people to talk about their own memories of studying in the UK. This actually helped to reassure them of my good intentions and encouraged others to open up. The problem was also lessened by the fact that some of my past colleagues were working at the hospitals, which helped to alleviate the worries and tensions of new participants.

Fieldworkers utilise a variety of techniques to record data; I kept my own field notes; recording the data will be explained next.

Field notes: Taking field notes is the most common way of reporting information (Creswell, 2007; Dey, 1993). They are created and developed by the fieldworker (De Laine, 2000). My field notes represented a condensed version of both descriptive and reflective notes (Fetterman, 1998; Spradley, 1979). The notes I had taken contained pages of description in my own words and represented a range of information obtained from the daily observation and casual conversations. This included information on the status of the library and the reactions of its customers, notes from interviews, the process of arranging CME and the opinions of providers and audience, the relationships between the staff of the education department and hospital managers, and notes on my own feelings and experiences; this confirms De Laine's view that, "Field notes then are not a 'raw' data since they come 'encoded with the author's conscience, understanding and interpretation" (De Laine, 2000: 148).

I would usually write down short comments during the observation, and as soon as possible afterwards, especially during breaks, I would write the information out fully.

The previous section detailed the particular methods of collecting the data and includes the semi-structured interviews, the questionnaires and the fieldwork. As the data became available, the next phase was the data analysis; the next section moves on to explain the procedure of analysing these data.

Finally, Creswell (2007) and Foster (1996) indicate that the main form of data collection in fieldwork is observation, yet observation often involves a combination of approaches, including interviews, and the collection of documents. These are described in the following section.

Semi-structured interviews with the second sample

The initial analysis of the first interviews and observation identified the medical library as one of the major challenges to the success of continuing medical education and it was therefore essential to investigate the perspectives of the individuals working in the libraries. Semi-structured interviews were chosen for this task and I interviewed all the librarians working in the participating hospitals (n=11). The libraries lacked the privacy necessary for conducting interviews, so they took place in some free offices.

The questioning method complements the methods used previously in a variety of ways that can potentially add to the validity of the research by providing internal crosschecking during the study process.

The librarians were asked a variety of questions on the following subjects: the suitability of the medical library building, services provided by the libraries, obstacles they faced and that interrupted the flow of library, and finally their suggestions on how to improve the performance of the library and their expectations for the future (the questions may be found in Appendix No 4).

Collection of documents

Fetterman (1998) states, "Written documents are one of the most valuable and timesaving forms of data collection" (p: 58). Existing materials or 'secondary data' are information that was originally documented or gathered previously by a different individual from the present researcher, often for an entirely different reason from the current research purpose (Johnson & Turner, 2003). "In other words, the researcher uses what is already there" (Johnson & Turner, 2003: 314).

During the fieldwork, I needed to obtain permission from managers to use written document materials to ensure the integrity of the data and for the purpose of clarifying and confirmation, including annual reports, electronic communications, job descriptions, databases etc. This sort of data was rich and proved to be excellent sources of data in the analysis.

5.5 Data analysis

Introduction

This section will detail the steps that were taken to analyse the raw data, including how codes were developed and how these led to themes and findings. It should be noted that the analysis was a continuous process (Onwuegbuzie & Teddlie, 2003). Fetterman (1998, p: 3 and p: 92) states that, "analysis is an ongoing responsibility" and "it begins from the moment a fieldworker selects a problem to study and ends with the last word in the report or ethnography".

This study had two databases, quantitative and qualitative data. This section explains integrating the two databases in the analytical process to create a single comprehensive dataset.

5.5.1 Analysing qualitative interviews

A process of preparing the data, including transcribing and translating, had to be undertaken before the data could be analysed.

Transcribing interviews

The process of transforming each recorded interview into a full transcript was performed inside the participating hospitals, as there was some reluctance about releasing recorders from workplaces, as mentioned earlier.

Arabic/English translation

Most of the collected data, including 26 out of the 33 interviews with the education representatives and all those with the 11 librarians, were conducted in Arabic, while four interviews were in a mixture of Arabic and English. All the interviews needed to be translated by me into complete English sentences prior to the analysis. The translation process was very time-consuming, taking four months in total.

Throughout the course of the study, I did a great deal of translation of the collected data. However, in this phase and after translating one interview into English, I asked three Arab colleagues, who specialised in the English language, to translate the same Arabic version of the interview in order to check my translation. Selected from a librarian's response, Table 5-4 presents a pattern of different translations of the same paragraph.

Table 5-4 A paragraph from an interview translated by 4 people

My translation	Colleague 1	Colleague 2	Colleague 3
Well, indeed, the medical library is lacking in all these specifications, located in the cellar with few windows, lit artificially, which are not characteristics of a professional library, and which make future expansion impossible. Furthermore, the library cannot accommodate more than 25 people at the same time and does not have any kind of utilities like other public libraries, and no privacy at all for users.	During the process of designing and developing the facility, a medical library with an attractive internal and external design must have a comprehensive integrated plan to include a superior acoustic environment, optimal thermal comfort, high quality visual environment, furniture and equipment that will enhance the comfort and performance of users. Any medical library lacking these essentials cannot be considered good or popular.	Unfortunately, the Medical Library lacks the aforementioned possibilities because: Basement location is not professional for a specialised library. Scarcity of windows while just using electric lights to light the place. No possibility for planned expansion. Library's capacity is only 25 visitors at a time. No public utilities. Lack of privacy needed by groups of visitors.	Unfortunately, the Medical Library lacks all these requirements, the reasons being that it is in a poor location in the cellar, which does not show any sign of the professionalism of a specialised library. There is an absence of windows, space and complete dependence upon artificial illumination. There are no possibilities for future expansion to make it more like other libraries. Additionally, the library is not capable of hosting more than twenty-five visitors at the same time, with evident shortage of utilities and complete lack of the privacy required by its visitors.

As shown in the above table, there are differences in the translations. The translations carried out by my colleague No.2 and myself were virtually literal translations of the original. Colleague No.3, who holds a PhD in English language, preferred to translate the meaning rather than the words, while colleague No.1 chose to include his own suggestions as to how to overcome the deficiencies mentioned by the librarian.

Furthermore, this process also included participation coding. All those participating in the research were assigned a participant identification code in order to protect their identity and maintain confidentiality. Participants' codes are shown in Appendix No (5).

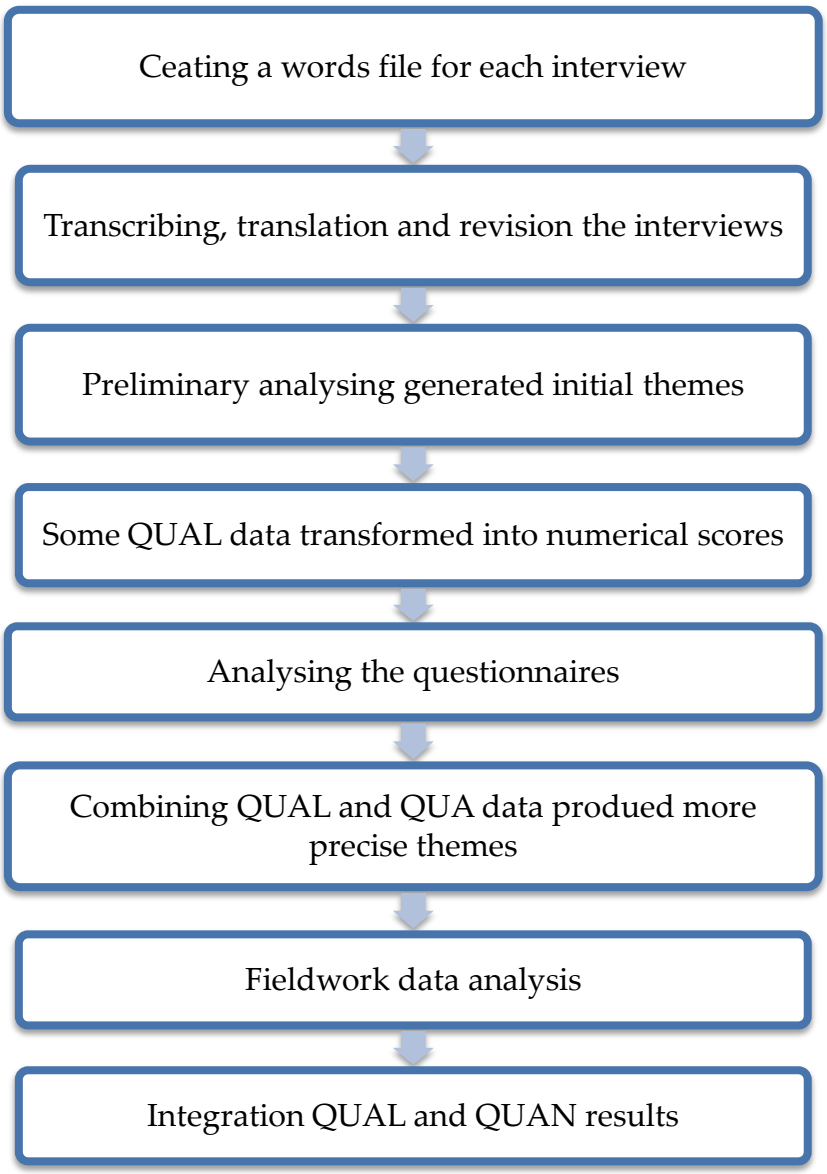
5.5.2 Analysing quantitative materials

The quantitative data obtained from the survey were organised numerically using the Statistical Package for the Social Sciences (SPSS) program; they were analysed using descriptive statistics (frequency distribution and percentages). The results obtained from the questionnaire data are presented in chapters 6-9.

5.5.3 Final analytical process

The basic data (transcripts, surveys, field notes, etc) must be converted into 'write-ups', so they can be typed up (Table 5-5).

Table 5-5 The overall analytical procedure



I started the analytical process by creating a word document file for each of the interviews I conducted with the CME representatives and wrote a brief synopsis of what had been said in each category (for an example, see Figure 5-3 below).

Figure 5-3 Example of a coded transcript section

Coding	**Transcript**	**Notes**
CME is important Challenges: Lack of CME rules Staff lack interest or motivation. No needs assessment Financial support	We have encountered some obstacles; we found we had not obtained satisfactory results. The difficulties always start with the fact that I cannot convince the overseas hospital staff to engage in continuous education; some people are not interested in participating in medical activities, but we do not have the rules to force those who are not interested. You cannot provide health services without an excellent teaching, excellent learning, and excellent theoretical and clinical background. To attain these you need to have a very strong medical education based on a high level of new training methods; you need more funds to send people abroad for further training, and you really need highly qualified education department staff.	Unsatisfied with status of CME Link between lack of interest and other difficulties: Educational needs are identified by traditional methods, lack of rules, and lack of qualified CME personnel Staff qualifications include nursing, IT, English and administration. No training in developing CME Funds needed to send people abroad for further training

Throughout the processes of transcribing, translation and revision, some information tended to be dominant in all interviews and appeared with evident frequency in the transcripts. I then began by identifying commonalities and differences between the items of data and grouping relevant information and segments of text from different parts of the interviews into related categories guided by the interview topics (King, 2004) and research objectives (Dey, 1993). The frequency of codes was obtained by calculating the frequency of each theme from the transcripts (Onwuegbuzie & Teddlie, 2003).

I developed a list of initial codes identified in the textual data. Hammersley and Atkinson (2007) assume that a successful investigator will outline sensitising themes from wide reading in the earliest phases of the research and not wait until the 'writing up' phase.

After categorisation, some qualitative data could be counted, besides, the result of the questionnaires that transformed some qualitative data into numerical data. It was during this stage that the quantitative data was analysed statistically and numerical scores were then integrated to the initial analysis. "This provides one means of identifying or confirming regularities and variations within the data" (Dey, 1993: 48).

The next phase was combining the fieldwork data, materials such as notes taken, a range of documents I had collected, and other sources consulted during the time in the field

In this step, data from the fieldwork that seemed related in some way to the preliminary analysis were linked: for example, I associated challenges to reasons and consequences. Connecting data provided a powerful method for recognising empirical associations between different elements within the data. This eventually led to a comparison between all the bits of linked data to refine the analysis and infer some connection between the categories from the study findings. Additional data resulted in further refinements being made to the categories, either in the form of the addition of new categories, or the subdivision of existing ones.

Field notes ensured data collected earlier and were a vital source for the analysis, it assisted in building "a bridge between observation and analysis" (Fetterman, 1989: 93). It also confirmed the credibility of data (Spradley, 1979). Categories were created, modified, divided and extended, and all the items of data were sorted out and allocated to the final categories. Eventually, a picture of the data was built up which was both clearer and more complex than the initial impression.

5.5.4 The final themes of the study

The findings revealed various challenges facing medical education in Saudi health organisations. In brief, the data indicated a strong connection between the health managers' lack of managerial skills and knowledge of the significance of CME and

all the other learning programme limitations (Figure 5-4). In fact, the shortage of appropriate health management was a primary cause of all other limitations.

The major findings of the study were grouped into four final themes:

1. Poor health care management.
2. Poor status of medical libraries, including the physical location and the services offered.
3. Shortage of learning programme budget.
4. The diverse training backgrounds of the health workforce and the inability of the current training programme to identify their different learning needs.

Each challenge will be discussed separately in the following chapters.

Figure 5-4 Connections between the findings of the study

5.5.5 Writing up the research

Composing the research brought the entire tangible product of work together (Fetterman, 1998). An important issue I took into consideration when writing up the research was being reflexive to different possibilities (Miles & Huberman, 1994; Creswell, 2007; Hammersley & Atkinson, 2007), and my reflection on the interpretation was "based on the cultural, social, gender, class, and personal politics"

(Creswell, 2007: 179). I adopted the narrative construction approach, I attempted to 'draw a picture' of the setting and become the 'storyteller', inviting the reader to share what I had seen (Creswell, 2007). In order to achieve this aim, a critical examination of CME in Saudi Arabian hospitals was carried out, with attention being paid to its current status and the challenges it is facing. The study traced the history of the Saudi health care system and investigated the development of medical education and CME in order to explain why the growth of Saudi health care services has not been matched by a similar growth in professional development services for health care practitioners. I interpreted the findings including the use of multiple quotations, and presenting the different perspectives of various individuals.

5.6 Validity

The issue of legitimating a qualitative study has always been a major concern in the literature (Creswell, 2007). Brewer (2004) defines the term 'validity' as "… the extent to which the data accurately reflect the phenomena under study (also sometimes called 'internal validity')" (p: 319).The strategies utilised for the data gathering and analysis ensured a high degree of internal validity in several ways. First, the prolonged relationship between me and the informants in the setting allowed for regular data analysis and comparisons to be made, in order to "refine constructs and to ensure the match between scientific categories and participants' realities" (Burns, 1997: 324). Second, the primary sources of data are generated from interviews with the informants and are "less abstract than many instruments used in other research design" (Burns, 1997: 324). Third, my role is established as an observer in natural contexts. Ethnographic analysis represents a strategy called 'disciplined activity', wherein I regularly questioned and reassessed information and examined ideas and biases (Miles & Huberman, 1994).

Furthermore, qualitative researchers employ strategies designed to express their capability to understand and interpret events from the perspective of the individuals

who are being investigated, and they use a range of safeguards against tunnel vision or bias (Miles & Huberman, 1994). I took a stance that allowed the individuals under investigation to express their views of their world in their terms, and the results therefore represent their views in the way they were expressed without seeking to make inferences or reinterpret their intentions. Furthermore, a variety of approaches to substantiating or clarifying findings from quantitative data is available: for instance, brief conversation, direct quotes, field notes, or examples of a particular activity that are used to verify a particular argument. I have adopted such useful approaches in order to allow the reader to formulate his or her own intuitions about the perspectives of the group, which has been studied, and about how adequately I have interpreted the behaviour of group members (Bryman, 1995). However, it was the use of triangulation, which went furthest towards enhancing the validity of the research findings (Burns, 1997; Hammersley & Atkinson, 2007).

5.7 Reliability and generalisability

Brewer (2004) defines 'reliability' as "The extent to which measurements of it is consistent" (p: 319), and 'generalisability' as "The applicability of the data to other like cases (also sometimes called 'external validity)" (p: 319).

Reliability is reliant on the degree of replication. Carrying out replications of a study is uncommon, and qualitative findings often go unexamined, hence they might be viewed as imprecise and non-confirmable. This difficulty of replicating qualitative studies could be seen as a drawback, but it does not weaken the evaluation of their validity (Allan, 1993; Bryman, 1995; Dey, 1993). Allan (1993), on the other hand, declares that there are well known examples of qualitative re-studies that have failed quite spectacularly to deliver findings similar to those of the original work. For Allan (1993) and Brewer (2004), not achieving similar findings is down to the researcher and the circumstances under which the information was gathered.

Allan (1993) explains:

> "While no two qualitative researchers will ask the same questions in the same order or observe exactly the same action, they can both study the same study, the same range of phenomena and generate the analyses which can each lead to new studies which themselves may result in further modification to our standing (p: 183).

This perspective has been overcome in this study in the following ways (recommended by Burns, 1997):

(i) I have presented a profile of the study and addressed the main objectives;
(ii) I have explained my viewpoints on the questions and described the research hypothesis, and
(iii) I have explained the course of the data collection as regards the timing and timeline of the study, and interviews and relationships with the individuals and groups to be developed for interpretation.

5.8 Ethical principles

In qualitative research, various ethical issues arise during data collection in the settings, analysis and dissemination of projects (Creswell, 2007). These include issues of confidentiality, privacy and anonymity, and the possibility of risk or harm to both the participants and the researcher.

Throughout all phases of this research process, I have often dealt with conflicting principles and a wide range of potential options, but I tried to ensure that I was sensitive to ethical considerations especially because the study touched on sensitive issues while investigating formal and informal relationships in the organisation's culture, which might have been seen as threatening to the participants' work positions and career development.

Newcastle University's ethics committee dealt with these issues in an ethics statement (Appendix No. 6). Some of these ethical issues are discussed in more detail below.

5.8.1 Anonymity, privacy and confidentiality

The British Sociological Association (BSA) suggests, "The anonymity of those who participate in the research process should be respected" and that any personal "information concerning research participants should be kept confidential" (BSA, 2002: 5).

Ethnography required me to interact with other individuals, such as interviewees and managers whose permission was required before I could enter the field, conduct interviews or access documents. I did this by taking care of the physical, social and psychological safety and to respect the dignity and confidentiality of my informants (Creswell, 2007; King, 2004; De Laine, 2000). I always protected collected materials, and informants were given the necessary information, and told about the main purpose of the study and what I hoped to achieve (King, 2004).

Suitable attention was paid to ensuring that both anonymity and confidentiality would be maintained both during and after the research process. Thus, no information about the respondents that might identify them was shared with anyone. Recordings were kept at the participants' work place as they wished, and during transcription and in the compiling of data from the participants, names and other relevant identifying data were replaced with pseudonyms. As digital files were not kept with me, the transcripts were stored in word file documents on a computer that no one but myself had access to. It was unnecessary to collect or store in files any personal information, which could have identified the participants. To ensure a greater degree of anonymity, names and relevant information were also excluded from official documents that were stored with the data.

Whilst participant consent was not required, at the beginning of each interview, I informed the interviewee that all interviews would be recorded but that all information would be kept anonymous and that nothing of what they said would be attributed under their names in any way. I also outlined issues such as the funding source and purpose of my study, the amount of time that would be needed to complete the interview, an explanation of the research methodology, informed them that any information they provided would be discussed only with appropriate people such as the research supervisors, and also explained how this information would be reported. When all these issues had been discussed with the participants, they could then decide whether or not to take part in the study.

When attending meetings and with managers, I often started by informing members that I would not use their names or any data that would reveal their personal details when reporting the matter, and assuring of anonymity when planning the use of material and documents collected from their departments.

5.9 Summary

This chapter was made up of four main sections. The first section initially mapped out the selected mixed methods of data collection and the theoretical framework guided the practice. It described the chronology of utilising the research methods that are semi-structured interview, questionnaires, and fieldwork. It also detailed the generation of the ethnography during the fieldwork. The second section detailed the development of the research design, moved through the sampling process, negotiation of access to sites with the middle management and recruitment of participants, carrying out the semi-structured interviews, the questionnaires, and the fieldwork. The third section explained the procedure of analysing the data, including the development of codes and the final themes and findings. The chapter ended with a discussion of ethical considerations addressed in the course of doing the research.

In the following chapter, management challenges is examined in detail.

Chapter 6 Management challenges

''Health stakeholders can no longer blame a budget that reached more than 68 billion Riyals. The health system problem is managerial not financial'' (Al- Qarawi, 2011: p: 5).

Introduction

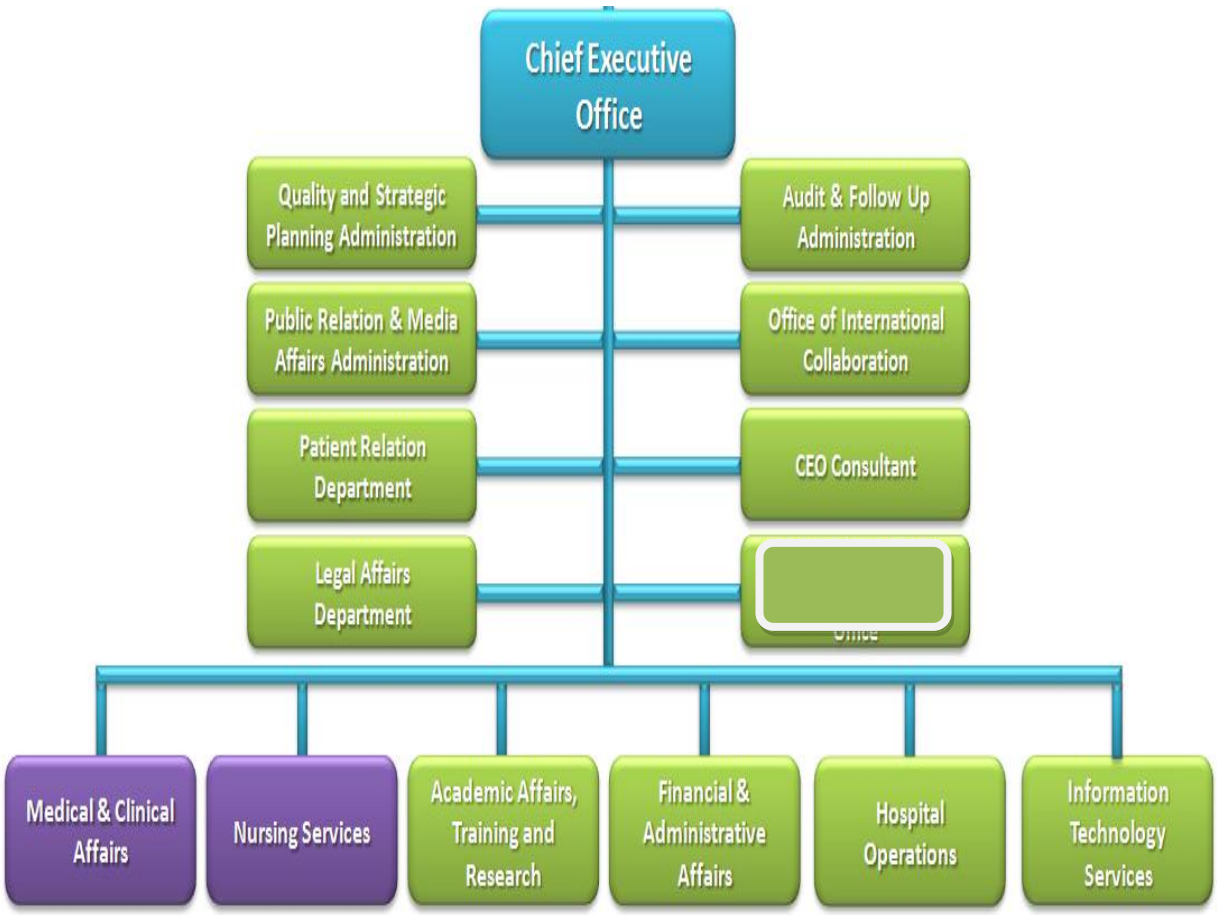
The information presented in chapter four clearly demonstrated that the government has taken positive action and invested heavily in the health sector in order to improve the standard of health care facilities and health care personnel. Despite that, there is criticism that the government agencies lack the managerial skills to improve health care..

With the aim of identifying the impact of management on the learning process of health professionals, this chapter explores challenges of management presented in the role of physician-managers. In addition, Saudi culture is viewed as the main driving force in business. Therefore, problems will be examined all along with the effect of the culture on management style and behaviour. In order to do that, I will first present examples of organisational structure of hospital and medical education departments. I will then address the survey results relating to management difficulties, and then move on to detail barriers of management expressed from the interviews and observed throughout the fieldwork.

6.1 Organisational structure of hospitals

In order to give the reader a fuller understanding of the reasons for the problems that the respondents had with management, I shall first present an organisational chart from one of the hospitals participating in this study as an example. This chart pattern (Figure 6-1) is considered to be widespread in the Kingdom's hospitals.

Figure 6-1 Hierarchical organisation model, site 3



Typically, at the top of the hospital management hierarchy is a CEO, who must be a consultant physician; two deputies, a physician consultant from medical services and an administrator of administrative and financial affairs, usually assist the CEO. The majority of executive managers and department chiefs are physicians who are members of departments such as quality control, planning, or education and training. Moreover, a group of physicians will manage some of the smaller divisions. Figure 6-2 below illustrates the structure of an education and training department from one of the participating hospitals. Administrators mainly hold financial, human resources or auxiliary services positions.

Figure 6-2 illustrates the structure of an academic affair, training and research department, which has a radiologist consultant as its chief executive, while four other consultants (a paediatrician, a dermatologist, and two orthopaediatricians)

direct the four divisions of the department. This is in line with what was discussed in chapter 3 regarding the trend of physicians occupying senior management positions in health care providers and government agencies.

Figure 6-2 Structure of an academic affairs, training and research department, site 3

The chart presented above (Figure 6-1) illustrates the interrelationships between superiors and subordinates within the organisation in terms of authority and responsibilities. A significant characteristic of this organisational style is the vertical pattern. The formal line of authority and communication is mainly one way, from the top down. The chain of command is usually very important and breaking it is considered taboo. (Communication will be discussed later in the chapter).

This section has presented the organization of hospitals that are dominated by physicians in high managerial posts. It has also illustrated the vertical chain of command, which can be inefficient and may decelerate communication and create boundaries between departments.

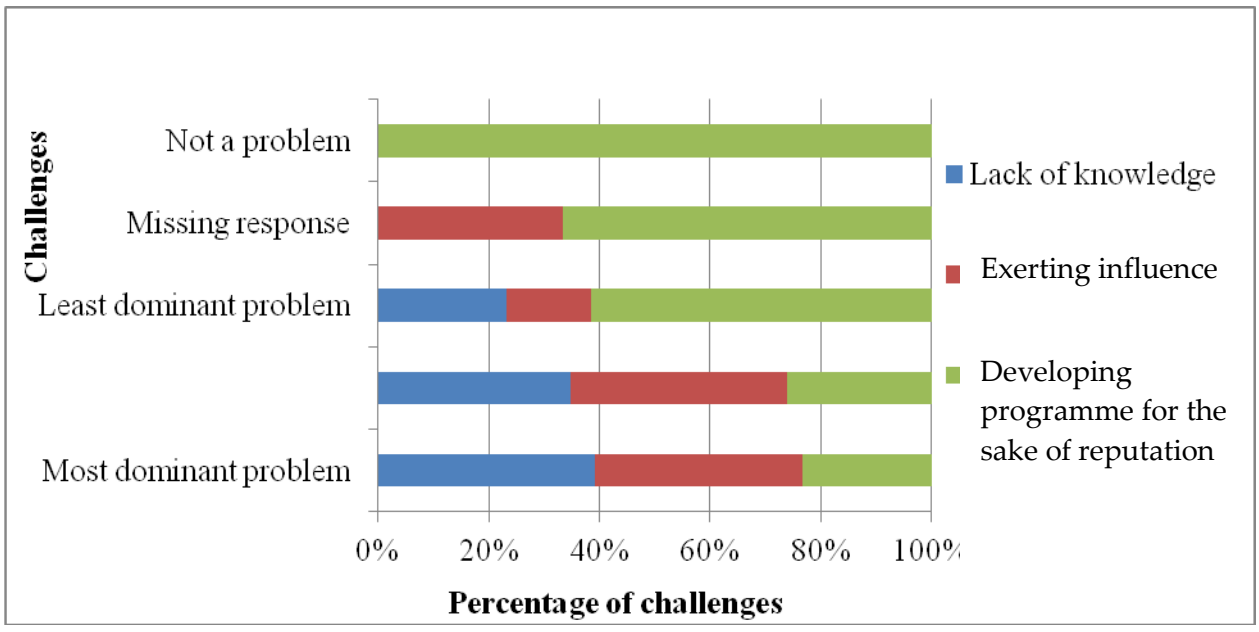
6.2 Results of the survey

On a scale of one to three (1 = seen as the biggest problem by the participants; 3 = seen as the smallest), the respondents were asked to rank their perceptions of the importance of the various aspects of management in their hospitals.

Table 6-1 Ranking of management challenges by respondents (N=33)

Problem	1		2		3		Missing response		Not a problem		Total
	Count	Per cent	Count	Per cent	Count	Per cent	Count	Per cent	Count	Per cent	
Lack of knowledge	22	66.6	8	24.2	3	9.0	0	0	0	0	33
Exerting influence over programmes	21	63.6	9	27.2	2	6.0	1	3.0	0	0	33
Developing programme for the sake of reputation	13	39.3	6	18.1	8	24.2	2	6.0	4	12.1	33

Figure 6-3 Respondents' views on management challenges, N=33



As shown in Table 6-1 and Figure 6-3, most respondents identified managers' lack of knowledge about the importance of CME as the major problem in this category, with 66.6 per cent giving it a '1' ranking and 24.2 per cent selecting '2' (that is, 30 participants in total). This means this factor was seen as the most significant problem out of all the categories.

The problem of managers exerting influence over learning programmes received the next highest number of '1' rankings (63.6 per cent, slightly less than the previous item) but was ranked '2' by 27.2 per cent (30) participants, which places it on a par with the first problem.

Managers developing programmes for the sake of their reputation received the third highest number of '1' rankings (by 39.3 per cent of the respondents) and was ranked '2' by 18.1 per cent (a total of 19 respondents).

In the next section, I will discuss the main factors that seem to be impeding successful management, highlight barriers on the effectiveness of CME, and shed light on the influence of Saudi culture on management style and behaviour.

6.3 Obstacles of management and their impact on learning

The role of the hospital director has changed dramatically over the past few years; it is linked to all aspects of the health profession and thus has many functions, including therapeutic, preventive, research and rehabilitation, all of which must be consistent with the global health system. This gives the director no option but to be a professional manager able to manage this sensitive facility (Mustafa, 2011). However, findings from this study indicated this is not the case with the present management status, and it identified several hindrances with the management. Most challenges are caused by ever-widening and overlapping circles of procedures and circumstances, what appears to be the obvious cause is often only indicative of a

much deeper problem. The management problem appears complex and the reasons lie in more than one area, so each has to be addressed in turn.

6.3.1.1 Deficiency of administrative skills

The popularity of the physician-manager is increasing in the Kingdom. The physician-manager is the one individual who is supposed to have had both professional training as a caregiver and management education. In reality, however, the physicians who occupied leadership posts lacked proper qualifications or training in administration (this issue was discussed in chapter 3). According to one of the physicians interviewed:

> "There are certain skills we are not taught in our medical universities; these skills are very important, like creativity, innovation, leadership, negotiation skills, skills in running meetings, communicating skills, and more competency skills" (Dir Qualt Mang, site 3).

A lack of academic preparation for management was a clear shortcoming of most physician executive candidates. Such a problem led to other implications; bureaucracy, leadership style and communication:

Bureaucracy

The management of health care provision was beset by bureaucratic problems and the chain of command is complicated and taken very seriously. Currently, every hospital director reports every single matter to the Director General of Health Affairs of their region, and managers must write to other directors and many government agencies before they can make a final administrative decision, and this kind of correspondence can take several months. As explained by one participant:

> "In many organisations in the Kingdom we don't have performance reports or execution strategies; the directors' chairmen conduct a lot of meetings and contact various agencies, but nobody can execute a decision or make a

> decision to put a plan into action, and that's why many projects are delayed" (Dir Qualt Mang, site 1).

Bureaucracy significantly affected the development of learning. Such an organisational form encouraged inefficient bureaucratic steps and resulted in an increase in unnecessary work that slowed down the effort. Below are some examples of bureaucratic practices occurring inside hospitals:

> "We needed to arrange visas for international speakers at one event; we were told we had to consider a long list of people before permission would be given, and actually it wasn't ready by the date of the symposium, [so] the speakers didn't come" (Med Const 2, site 3).

Another participant complained:

> "The hospital administration has to approve every proposal relating to the activity first, and this step alone takes a long time" (Chief Para Med 2, site 1).

Bureaucracy generated gaps between decision-making and implementation and this hindered the setting up of both medical programmes and learning projects. For instance, subscribing to scientific journals and medical periodicals is not easy for health institutions, because subscriptions must be paid in advance, while Saudi government financial procedures will only arrange payment after delivery. This leaves the medical professionals without recent textbooks or E-journal subscriptions. In addition to this, there is the inefficient bidding system for equipment and supply companies (for details see chapter 8). In short, bureaucracy decreased the organisational ability to respond rapidly to the demands of health care professionals and their changing needs.

Leadership style

Hospitals typically have explicit organisational charts detailing their structure. The chart presents an idealised image of the institution, but I found it a useful starting point for investigating organisational culture (Fetterman, 1998). My task required a

more deeply immersive investigation into the informal systems and influences leading the institution. I observed the functional relationship of one individual to another and interaction that took place in the workplace, I needed to extract information from the group under study to describe the underlying make-up of an organisation in order to understand its inner workings, and explain the social functions (Fetterman, 1998; Brewer, 2004).

Decision making in health institutions is complex because it usually involves a wide variety of health care professionals. Therefore, physicians taking on managerial responsibilities are expected to acquire specific skills, including individual, and team or collaborative approaches. A manager should be able to interact with a 'role set' - a network of skilled positions that includes subordinates, superiors and colleagues. It is essential that they understand that their responsibility is greater, having moved from individual accountability to responsibility for the work of others (Leatt, 1994). The observation however revealed the view that a democratic style of leadership was not endorsed; rather, an autocratic manner was preferred. Managers expected punctuality, and obedience to the authorities. If those in authority wanted subordinates to do something in a particular way, members of staff followed these dictates even when they did not agree with either the action or the goals, or would personally prefer to do something different.

Furthermore, Saudi societal norms undermine teamwork. Teamwork is interpreted in Saudi culture as a lack of self-control or weakness. The fieldwork revealed that in some cases doctors who control health positions and decisions were paternalistic (doctor knows best), and looked down on other disciplines, seeing them as inferior. Furthermore, Al Humaidan (2003) states that managers should avoiding making individual decisions in each case, and make employees understand that the outcomes are the responsibility of everyone However, one said:

> "We sometimes suggest many things to improve our activities, including the way these activities are conducted and ways of selecting speakers, but most of the time I feel they don't listen to our voices and just do what they (hospital admin) themselves want"(Para Med, site 3).

Also, a significant trait of the culture is face-saving, asking co-workers' opinions may be interpreted as a weakness, and managers are unwilling to show this 'weakness' to superiors or subordinates. They are expected to know more than their subordinates do, so their subordinates' input is neither asked for nor appreciated. The participants confirmed the fact that doctor-managers specifically lack team spirit and are incapable of leading a team in their work environment. Recognition was at a low level, the participants lacked a sense of job satisfaction and of belonging to the organisation.

Some staff were more reluctant to challenge their managers and more apprehensive about expressing disagreement with their supervisors. They revealed that they could not express their opinions or creative ideas to executives for fear of jeopardising their jobs. One participant was dissatisfied with the lack of team working and felt that staff were neither listened to nor respected:

> "Directors and chairmen have to know that the staff are our employees and are human beings, they should be respected and they should be heard" (Dir Quality Mang, site 2).

Communication

It is necessary for managers to create effective communication channels with staff. Managers with good interpersonal communication skills can get the best out of their people (Al-Ahmadi *et al*., 2005; Alyemeni, 2010). The abundance and diversity of nationalities of the professionals working in hospitals means that it is potentially quite difficult to bring them into harmony without effective communication. However, interaction among both staff and different management operations (top, middle and lower management) in order to contribute towards helping

administrators to make decisions was found to be poor. The current communication pattern was ineffective and one-directional only: from the top down, and the participants believed that the managers did not provide a positive work environment for the staff (communication difficulty will be discussed in chapter 9).

Further, the nature of conversations that took place in the Saudi work contexts is different from that of conversations in similar contexts in Western countries; managers tended to be more indirect in their communication. The natural result of poor interaction, or what is referred to as relational competence, was typically a combination of confusion, fear and misinterpretation among members of staff.

6.3.1.2 Lack of knowledge about staff education and the learning process

As shown in Table 6-1, most respondents identified managers' lack of knowledge about the importance of CME as the most significant problem out of all CME challenges in the Kingdom (that is, 30 participants in total).

The participants reported that managers in charge of learning programmes are not familiar with the learning process.

> "Hospital managers are not experts in the learning and teaching process, this is a major difficulty in developing learning programmes" (Chief Med 3, site 3).

Also,

> "The deficiency in the hospital decision makers' skills and knowledge is an obstacle to the improvement of the teaching process" (Med Const 2, site 2).

Many participants were of the opinion that physician-managers, particularly those involved in staff learning, should increase their knowledge and skills in diverse management skills and give more effort and attention to the learning development process.

"People who are working in this area should be qualified people who have educational as well as theoretical experience" (Chief Med 2, site 1).

"People who are in charge or who assume leadership of the learning programmes or academic activities should have both experience in these processes and some sort of official training in the academic activities of the health care system, so they can do appropriate planning to improve the institutional process of development" (Med Const 3, site 2).

"The driving success of any institution is its learning programme, and the staff who are running these programmes should have a clear plan about what they are doing and why they are doing it" (Med Const, site 1).

6.3.1.3 Bias towards certain specialities

Managers should deal with all staff without bias or favouritism, paying attention to their present and future needs (Al Humaidan, 2003). However, the participants confirmed that when their organisation sets up a learning programme, priorities might be determined according to managers' interests.

"We have difficulty in selecting the right subjects for education and training and prioritising them. In my experience the selection of topics for education or training is based on the interests of heads of departments rather than on the needs of staff or patients" (Mang Edu, site 2).

Another said:

"Our hospital education needs are chosen by the main admin also" (Dir Acad affairs, site 1).

Furthermore, some medical specialities received more attention than others, officials were biased in favour of activities from their own speciality. Seminars and workshops deal specifically with managers' and decision makers' specialities, which are encouraged and given priority.

"My department activities miss the cooperation and the support of the main administration and education department; their concern goes to other departments" (Para Med, site 3).

One librarian known to me revealed that he worked with two different CEOs; both showed loyalty to his single speciality. All their dedication and interest goes into improving the staff and departments related to their professions. He said:

> "The library is in a desperate need of the CEO's attention; if he would just give the library half the support he gives to expanding his department, we would have the most efficient library in the Kingdom" (Libr 3, site 2).

Only one participant said that education activities get the support of the main administration office: "We always have the management's commitment and support" (Dir Pst Grad Tran, site 1). However, the same participant said that when it comes to determining courses:

> "We respond to the hospital administration executives' requests and their needs for conferences". Perhaps this explains their support.

Organization needs to develop skills and knowledge of human resources. Hence, it is important to develop rules that oblige medical services providers in all sectors to provide staff training programmes in all specialist areas and at all levels (Al-Harbish, 2011). However, thirty out of thirty-three respondents claimed that managers do not support medical activities. Chief of medical 3 (site3) states,

> "Staff teaching in the CPR centre sometimes faces difficulties with the heads of departments; they do not cooperate with them or allow them to teach".

6.3.1.4 Developing courses for strengthening social status

Directors are said to value their personal concerns more highly than the goals and performance of their organisations (Peter *et al*., 2007; Khursany, 2011). Some participants argued that managers conduct medical events in order to gain status and fame. Chief of Para Medical 2 (site 1) states,

> "Organisers look only for public image".

Another said:

> "Managers are after international conferences only in certain specialities for propaganda reasons" (Med Const, site 1).

And:

> "The only difficulty I can anticipate is when learning programmes are developed for the sake of personal fame and gaining credit, not for the purpose of professional development" (Dir Acad Affairs, site 2).

The participants insisted that officials should not just monitor the amount of money being spent on learning programmes: more importantly, they should monitor *how* it is spent, and whether the money is being used in the most effective way. It is important to know how to make the most of the money assigned for staff development.

This section revealed the several underlying factors appear to be impeding the management of the Saudi health sector include hospital leadership and the country's unique cultural context. It has explored factors that the respondents identified as negatively affecting the current Saudi approach to health management, and that are therefore potentially impeding the improvement of continuing medical education (CME). These factors are the traditional management system, which are based on bureaucracy, autocracy leadership style, and horizontal line of authority, and the inadequate training and administrative skills of hospital managers, which led to problems, include lack of knowledge about the importance of staff learning, bias towards their speciality and using their positions to influence the learning programmes. It also highlighted the relationship between the managers' behaviour and leadership style and the distinctive characteristics of Saudi society and traditions.

6.4 Summary

The results of this study led me to conclude that management problems come before all other problems facing health care provision in the Kingdom. Saudi managers may reflect a mixture of organisational, individual and cultural factors. This chapter examined the factors and barriers that influence management and that are having an adverse effect on the development of CME in the Kingdom: the physician- managers along with the effect of Saudi culture.

In order to do this, an organizational structure was first presented to draw a full picture of hospital management. The second section addressed the results of the survey showing that managers lack knowledge about the importance of CME, exert influence over learning programmes, and develop programmes for the sake of their reputations. Thirdly, challenges related to the employment of physician-managers, including the vertical organisational structure of hospitals, the physician-managers' deficiencies in administrative skills, their lack of knowledge about the importance of learning and development, their bias towards certain specialities, and the relationships between tradition, business and leadership characteristics were also described.

In the following chapter, shortage of budget challenge is examined in detail.

Chapter 7 Budgetary restrictions

> "Any educational programme will succeed with money, time and administrative support; we obviously need money to conduct conferences, attend training courses, acquire recent books and subscribe to journals" (Chief Med 3, site 2).

Introduction

This chapter will investigate the sources of funding for continuing medical education in Saudi Arabian hospitals; I shall also present physicians' opinions about the sufficiency of funding and their attitudes towards the current source of financial support, and examine the potential complications of this source of support.

The chapter is divided as follows: I will first present the interviewees' views, emphasising the importance of learning, and the challenges they face in securing adequate financial support from hospital budgets; and then show the results of the survey. I shall then go on to examine the grants physicians obtain from the pharmaceutical industry as an alternative source of funding for CME, and the possible implications of this.

7.1 Information from the interviews

7.1.1 Finance for learning programmes

The participants stated that they are expected to engage in a variety of learning activities throughout their careers to improve their skills, to fulfil their learning needs, to keep abreast of recent developments in their field, to practise medicine safely and competently, and to improve health outcomes.

7.1.1.1 Establishing a competitive learning programme

The current medical learning programme could be classified into four categories: 1) the daily morning meeting and ward rounds; 2) the weekly activities – seminars, bedside teaching, case presentations, mortality and morbidity meetings, lectures conducted by consultants, tutorials and journal clubs; 3) the monthly medical club, and 4) quarterly or annual activities such as national and international symposia and conferences.

7.1.1.2 Attending courses

All participants agreed on the importance of engaging in various learning activities and on the vital role played by CME, which keeps their interest alive.

> "We have some skills and knowledge and these are sharpened and retained for a longer time if we take part in courses. Learning programmes enhance the stability of a person in the institution" (Chief Med 3, site 3).

> ''New developments in CT scans, MRI and interventionist radiology make it essential that staff members working in the department of radiology keep abreast of current research. This increases the expertise of employees, improves the quality of their work and decreases errors when they operate their equipment" (Chief Para Med 1, site 1).

To achieve these learning objectives, they were looking towards to their health care organisations to facilitate and develop organisational learning, and to allocate adequate budgets to maintain a well structured learning programme. In addition, they emphasised the fact that qualified people should be given an opportunity to do additional training or a sub-specialisation abroad.

> "Financial support is very important, and it will eventually improve the learning programme" (Med Const, site 1).

Medical education departments have an annual budget that comes from the Ministry of Health (MOH). However, the majority of the participants (25 out of 33) pointed

out that securing a sufficient budget is one of the main obstacles they encounter when attempting to arrange or improve educational activities, when they need to attend conferences, and when they need to go abroad to study.

> "We have difficulty with funds when we need to conduct these educational programmes and in order to improve our activities" (Para Med, site 1).
>
> "We need more budget to educate the juniors and to improve the level of education" (Med Const, site 2).
>
> "What is missing in our hospital is support for those who want to study or attend conferences inside or outside the Kingdom" (Chief Para Med 2, site 1).
>
> "We have to encourage attendance not only at local conferences but also international ones. Even when our administration allows you to attend an international conference, they give study leave for two weeks but do not cover course fees or the cost of tickets"(Chief Med 3, site 2).

The result of the lack of budget is that they have to look for alternative sources of funding, that is, they use money collected from course and symposium fees, and they request support from commercial bodies. These two sources of funding are examined in the following section.

7.1.2 Alternative financial support for CME

7.1.2.1 Fees collected from hospital educational activities

Medical education departments use income derived from educational activities they conduct to supplement grants obtained from the Ministry of Health. This may be enough to cover the cost of printed materials for courses, instructors' fees and the fee charged by the Saudi Council for Health Specialities (SCFHS) to accredit the programme. In this way, some short courses can be arranged without any external resources.

7.1.2.2 Pharmaceutical sponsorship

According to the participants, pharmaceutical companies play a major role in postgraduate medical education. The majority of the participants confirmed that organising medical meetings and especially international conferences is expensive, so they are obliged to request support from pharmaceutical companies.

> "We always request more money to support training and conduct international conferences because these are very expensive" (Med Const 1, site 2).

> "If you want to get speakers from the United States, Canada or the United Kingdom the cost is high. Fees, first class tickets, accommodation and related expenses cannot be met from the departmental budget alone" (Chief Med 1, site 1).

Furthermore, the role of industry in sponsoring CME may take several forms, such as presenting lectures, sponsoring staff to attend conferences, and financing educational events.

Delivering lectures

Sales representatives from commercial companies give lectures and demonstrations to health professionals on their new products and scientific developments.

> "They make various presentations, sometimes on their drugs and instruments, in hospitals, or they educate the staff about the latest developments in medicine" (Med Const 3, site 2).

> "Companies sometimes present lectures to update the staff, and also, as we use a lot of their equipment, they teach nurses how to use it" (Chief Para Med, site 3).

Covering expenses of staff attending conferences

Some participants reported that many health professionals are flown abroad by commercial drug companies. The industry supports doctors by paying their

registration fees and arranging their travel and accommodation. Others revealed that companies offer the incentive of a fully paid trip to Europe to participate in international conferences or visit their factories.

Participants described the role played by drug companies as follows:

> "They (pharmaceutical firms) participate in symposia and in courses and sponsor academic activities abroad" (Chief Med 1, site 3).
>
> "They cover the fees of particular conferences for some doctors" (Chief Med 3, site 2).
>
> "Drug companies sponsor local meetings and help the residents attend international meetings" (Chief Med 1, site 2).
>
> "We will usually ask some companies to sponsor us, especially if the course is outside the Kingdom" (Chief Para Med, site 3).

Sponsoring educational events

Commercial companies also provide assistance for medical education departments by financing their local and international medical meetings. According to the participants, the contributions made by pharmaceutical companies are substantial. The companies cover the cost of speakers' fees, tickets, catering, accommodation and gifts for speakers and attendees.

Some interviewees commented:

> "They help in sponsoring educational activities; their support can cover the cost of conferences and workshops" (Chief Med 3, site 2).
>
> "They pay for tickets and accommodation for speakers, food, gifts and all the other things we need for the events" (Para Med, site 2).
>
> "Briefly, they will pay for everything involved in symposia or scientific activities" (Chief Med, site 1).

> "They cover the cost of guest speakers at all local and international symposiums" (Chief Med 1, site 3).

One medical department chief (site 2) gave the example of an international conference on hepatobiliary surgery that his department had recently conducted. He said:

> "All eleven international speakers were sponsored by drug companies. The hospital paid nothing. They covered all the expenses, from air tickets, accommodation and the bill for the venue to food, drinks, the cost of paper, and posters and transportation. The hospital contributed nothing."

The observation also showed that, education departments or chiefs invited commercial companies and asked them for financial aid for forthcoming events. According to two of the interviewees:

> "Companies play a major role in sponsoring a significant number of our activities, especially the medical ones. We usually invite them to take part in these programmes" (Dir Acad Affairs, site 1).

> "The main source of sponsorship for our activities is company (a pharmaceutical company based in the Kingdom). We usually contact their sales department to pay for the speakers and all the activities" (Para Med, site 2).

Nearly all the participants were grateful for the CME funding provided by the industry. The participants recognised that company finance had a major role to play in their career learning needs:

> "A very big role, that's what I want to say. The vital role played by these companies helps sponsor our activities. Without their sponsorship we would not be able to do much" (Chief Med 1, site 2).

> "There are actually both positive and negative aspects to the role played by drug companies in financing and conducting educational activities, but from my perspective I think it's positive. I think it is good for the people to be aware of what is coming up in technology, in health care and drugs.

> Therefore, it is a positive and good thing for the companies to sponsor educational activities" (Dir Quilt Mange, site 2).

One participant who was a paramedic explained what activities sponsorship might include,

> "They have a great role; we arrange activities with them usually, they do a great job; the people (from an equipment company) cooperate really well with us, they sponsor every aspect of our activities, such as workshops or symposia, from start to finish. They arrange speakers, food, gifts for speakers and the audience" (site 1).

Commercial companies also covered the cost of physicians' medical trips:

> "They are sending some of the medical staff on training courses inside and outside the Kingdom, so they actually play a positive role in educational programmes" (Chief Med 1, site 2).

> "They play a very good and major role. As an example, they sponsor staff to attend international or local meetings in order to improve their knowledge and the quality of their practice. Secondly, they sponsor symposiums or conferences by inviting international speakers and funding the whole activity" (Med Const 3, site 1).

> "I think drug companies are important for education in all learning centres. They play a big role in supplying materials and provide opportunities for junior and senior staff to attend conferences" (Med Const 3, site 2).

Only two physicians did not appreciate the involvement of pharmaceutical companies in funding educational activities:

> "Unfortunately, they are considered the official source of financial support by the academic affairs department of the hospital when we organise any major scientific activity" (Chief Med 3, site 3).

He then explained,

> "We should not need to rely on such and such a company to sponsor our events because this takes time and effort and involves favouritism. If I had my

> own budget from the hospital then it would be easier to plan things ahead and arrange an annual academic programme, but if my budget relies on the companies then I have to wait for their agreement to sponsor an activity, so I cannot set the date until they have given me a positive response" (Chief Med 3, site 3).

> "Unfortunately financial support comes only from these 'business' companies. Without their support, it is very difficult to conduct our programmes; activities can be cancelled or altered according to their interest or the amount of their funding. If we just had enough support from the academic affairs department and a sufficient budget from the administration, we could develop our professional degrees and standards without the involvement of these businesses" (Chief Med 3, site 2).

On the other hand, a few participants offered a different perspective, stating that the financial support for learning programmes provided by their hospital was sufficient.

> "Well, with regard to the budget I have no problem because the CEO is supporting me, and we have good financial back-up from the government" (Dir Quilt Mange, site 2).

> "We have an adequate budget" (Med Const 3, site 1).

Other participants said that they were satisfied with the existing budget allocated by their hospital, but that they would request extra funds from drug companies when needed.

> "In fact we have no problem. We have our annual budget for educational and training activities; this is supported by income from fees for these activities, and we may also get support from drug and medical equipment companies" (Chief Med 3, site 2).

> "We have all the resources we need to conduct the activities, but if we're short of funds we get them from sponsoring companies" (Dir Post Grad Tran, site 2).

In view of the major role played by these companies in funding CME, it was important to explore the implications of their involvement. The majority of health

professionals confirmed that the drug companies' role in CME is merely to provide financial support and is not related to the topics of the activities.

> "The role of drug companies is to provide financial support, but they play no role in deciding the content of the activity" (Med Const 2, site 1).
>
> "Their role is limited to financing some courses" (Med Const 2, site 3).
>
> "They sponsor scientific meetings and social activities, not their content. And they sponsor physicians to attend international symposia" (Med Const, site 2).
>
> "Their role is mainly financial, sponsoring speakers, covering the cost of tickets and accommodation. It is not related at all to the topics we choose for our meetings or conferences" (Chief Med 2, site 2).

In brief, the health professionals claimed that grants obtained from the Ministry of Health and fees collected from hospital educational activities were not enough to cover the cost of learning programme. The participants sought alternative sources of financial assistance from the pharmaceutical industry in forms of presenting lectures, paying for educational trips, and sponsoring educational events. The respondents appeared to be delighted about this kind of physician- pharmaceutical collaboration, and only two participants were sceptical about the commercial interest in funding. Nearly all the respondents insisted that the commercial role is limited to the provision of finance and is not related to the topics of the meetings.

This collaboration between medical professionals and commercial companies leads us to ask what benefits the pharmaceutical industry gets in return for the financial support it provides. This is investigated in the following part.

7.1.3 What is the pay-off for such support for the pharmaceutical firms?

Several participants said that as quid pro quo for financial support from pharmaceutical companies, the companies are allocated a short time during the programme in which they can promote their products. In addition, they are allowed to advertise on publicity materials and gifts.

> "When they give us financial support, we usually give them an opportunity to market their products, and we present their logo at our conferences or in our campaigns" (Para Med, site 2).

> "We usually allow them to give a brief presentation about their products, and they usually present their products very well" (Chief Med 1, site 2).

> "Just presenting their stands as advertisements … and we also give them time to present some information about their products" (Med Const 2, site 3).

Moreover, two participants stated that these commercial companies might also ask health professionals to evaluate the performance of their drugs or equipment to compensate them:

> "We evaluate their drug which we use day in and day out in the department, and give them feedback. We select patients for prescribing their drug. This is so that these drug companies will fund our various activities. They help when there is a shortage of money to conduct training programmes or research activities" (Chief Para Med 1, site 2).

> "They put samples of their new drugs or even new pieces of equipment in the hospital to get feedback on their efficacy" (Chief Med 1, site 2).

On the other hand, two participants stated that the pharmaceutical companies played no role in their departments' learning activities:

> "Since I joined this hospital (3 years ago), they have played no role; we depend solely on our own resources here, so that the companies have nothing to do with us. However, if we planned a big education event we might request their help" (Med Const 1, site 1).

> "In the Lab., there is no any role for these companies" (Chief Para Med 1, site 1).

In addition, one participant stated that although these companies play an important part in his department, it is limited to providing technical training in the use of their instruments, which they supply. This forms part of the contract with them to orient the staff to their equipment. However, when he revealed his educational plans, he

showed interest in asking companies to support the cost of some of his department's educational activities, such as the paediatric club and the transplant club (Med Const 1, site 3).

In the case of those few participants who declared that they had not requested assistance from drug companies, after reviewing the department's education document and clarifying it further with the department's employees, I found that one of these departments had not conducted any major educational activities and that they only had regular department activities (such as morning lectures, journal clubs etc.).

As mentioned above, nearly all the participants insisted that the role played by commercial companies was limited to financial support. However, company representatives did attend the meetings held in order to prepare for the activities. My own observation and documents obtained from the education department revealed that these representatives are given the freedom to select speakers (Appendix No. 7).

Two physicians frankly criticised the relationship between commercial companies and physicians; one chief of a medical department stated that:

> "Unfortunately, doctors will sometimes include topics designed especially to attract company grants" (site 2).

On the other hand, some participants gave different facts about the companies' financial contributions. One participant stated that companies play a variable role, and that it depends on the subject of the training or educational activity. He said companies usually volunteer to take part only if they will benefit (Med Const 2, site 1). In addition, one medical consultant said that, although they do arrange certain major educational activities, drug companies do not contribute substantially because the Ministry of Health alone supplies the drugs:

> "The role of drug companies especially in our department is not very big, because actually all drugs needed by the department come from the Ministry, and we have no role in choosing them. Even though we have organised a large number of conferences, their role in funding them was very minor" (site 1).

Another participant said:

> "The role of the companies is very weak in our speciality. These companies have no interest in our specialist area" (Chief Med 3, site 2).

This section referred to the observable benefits the companies derived from such a support, including opportunities to make presentations, distribute samples, attend education meetings, and select speakers. The participants claimed these actions do not influence their programme content; however, all these issues might lead to bias or conflict of interest. Furthermore, a few doctors confirmed altering programme to attract commercial companies, and others said drug companies' involvement increased according to their interest in some areas.

7.2 Information from the questionnaire

Budget and library challenges were placed in the same 'Resources' category in the questionnaire. The budget factor is the subject of this chapter, while aspects associated with the library are discussed in the following chapter.

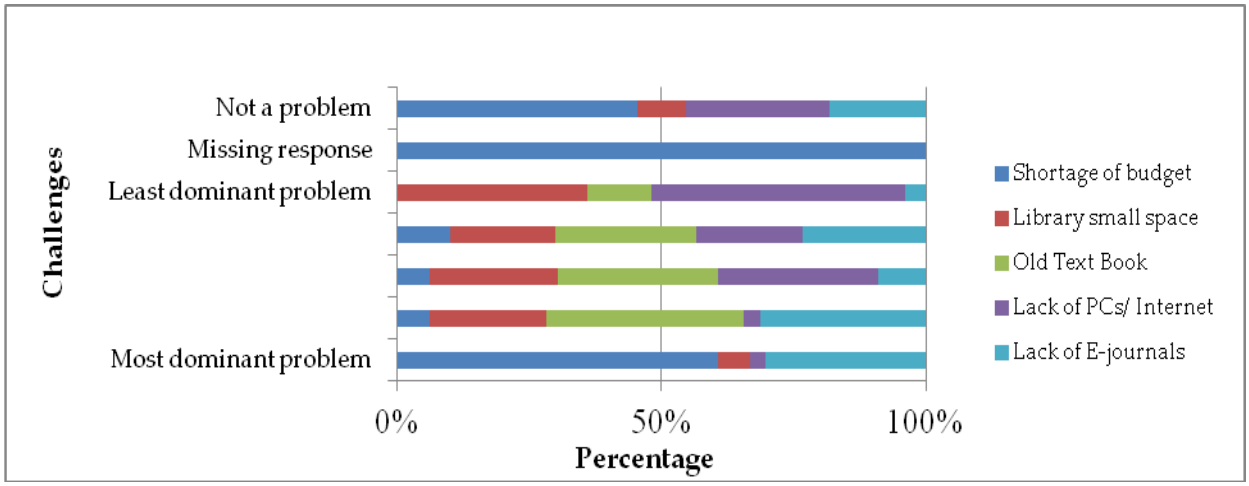
In the 'Resources' category, the problem was given a number on a scale of 1 to 5 (1 = the greatest problem to the participants; 5 = the least). Using this scale, the respondents were asked to rank their perceptions regarding the extent to which they considered the shortage of budget to be important in their hospitals. Participants could identify the topic as not being a concern in their institution. The descriptive statistics of the responses to the shortage of budget are shown in Table 7-1 and

Figure 7-1.

Table 7-1 Ranking of budget challenge indicated by the respondents (N=33/3 hospitals)

Problem	Count 1	Count 2	Count 3	Count 4	Count 5	Missing response	Not a problem
Shortage of budget	20	2	2	3	0	1	5
Library small space	2	7	8	6	9	0	1
Old Textbook	0	12	10	8	3	0	0
Lack of PCs/ Internet	1	1	10	6	12	0	3
Lack of E-journals	10	10	3	7	1	0	2

Figure 7-1 Frequencies for the shortage of budget indicated by respondents (N=33)



As illustrated in Table 7-1, deficiency of budget was considered to be the biggest problem in the 'Resources' category, with 20 and 2 respondents (a total of 22 respondents) placing it in 1st and 2nd place respectively. Only 5 respondents put it in either 3rd or 4th place, no respondents put it in 5th place, and 5 respondents ranked it as being of no concern.

7.3 Organising a medical event with a pharmaceutical company

"This is to confirm our Golden sponsorship"

(An anonymised email from a drug company to the director of an education and training department offering sponsorship for an event.)

In this part, I will explain my participation in arranging medical meetings with the participants; include presenting the role of commercial companies. Information derived from the fieldwork, along with copies of official documents, will be considered.

Throughout the observation, the presence of well dressed international drugs company representatives roaming around inside hospitals, distributing stationery to staff (pens, calendars, flash sticks etc.), attending meetings with physicians, and arranging events with education and medical departments became common.

Surprisingly, the limited number of local pharmaceutical manufacturers had no representatives visiting hospitals or offering CME sponsorship. However, their recent establishment or inexperience in the market may explain this absence.

These representatives can arrange an educational event directly with the chief of a medical department. The majority of the events are fully sponsored by commercial drug companies usually, but when activities are not of commercial interest, the hospitals usually pay 30 per cent of the total expenses. Appendix 8 contains an application form from an education department showing categories of conference promotion and the materials needed.

Drug company representatives were frequently observed meeting with chiefs of departments casually or officially, before they reached an agreement, however, attending company-physician meetings were limited to only them as I was told, and I therefore was not permitted to attend.

However, I did notice that such meetings had neither meetings minute that I could review, nor guidelines on industry support of CME were existence in the hospitals. After meetings, Chiefs send their request to the education and training department to get the CEO's approval for the event and for issuing visas for the speakers (Appendixes No. 9). The education and training department then applies for

accreditation from the Saudi Commission for Health Specialities (SCHS). Finally, the administrative arrangements were made.

The documents examined from education and training departments showed that they occasionally initiate contact with pharmaceutical companies if the medical department that plans to conduct the event has not prearranged funding with a commercial sponsor directly. The department informs the companies' representatives about their forthcoming academic activities, and invites them to sponsor the events (Appendix No. 10). Interested drug companies then have to confirm their primary or secondary sponsorship according to the sponsorship categories that are classified by the education and training department (Golden, Silver, Bronze or Exhibitor group) (Appendix No. 7). These categories give different privileges to the sponsoring company, which may include having the company name displayed on all printed materials, an exhibition booth with all facilities, free invitations to the company's delegates and the right to select the speakers.

During such an event, I observed the sponsoring company setting up a stall administered by highly educated drug company representatives. They offered gifts, eye-catching pamphlets and answered questions about their latest products.

In fact, I noticed that some companies supported countless activities when it came to topics of interest to them. Others paid out generously in an effort to be the sole sponsor of events. For instance, in 2008 and during my fieldwork, one of the sampled hospitals held an expensive international nursing conference that I assisted in organising. The conference had invited 10 international speakers and the audience reached 200 to 250 people during the three days of the event. The commercial guarantor was looking for ways to ensure that it remained the sole sponsor. This company covered all expenses. The cost of the conference exceeded S.R.1.000.000 (≈ £260,000). In exchange, the company made a presentation for 15 minutes during each day of the event, ran meetings and reserved a booth in the hospital lobby. It used

marketing techniques including advertisements, banners, printed materials, samples and gifts. In addition, after the conference they invited the speakers and my organising team for a carefully designed tour of the country's big cities.

Usually, when the industry invites international speakers to participate in conferences conducted in the country, they are taken around some of Saudi Arabia's big cities along with the CME providers. Muslims are given the opportunity to visit the Holy city of Makkah to perform 'Umrah'. This pilgrimage can be performed all year long.

An additional issue that I took into consideration about pharmaceutical company-sponsored CME is the venue. They preferred comfortable hotel halls for conferences, journal clubs and other small meetings to the lecture halls and auditoriums provided by hospitals.

Furthermore, pharmaceutical sponsorship of medical professionals to attend international conferences was widespread in the hospitals. Companies invited doctors to be guests or to attend international conferences. Some of these all-expenses-paid trips were to attractive resorts to promote new products that firms planned to introduce into the Saudi market. Companies also went on to invite the physician to visit the company's building.

7.4 Summary

This chapter has highlighted the shortage of CME budgets in some Saudi health institutions, which was identified as a barrier to the establishment of appropriate learning programmes. Alternative funding sources of CME were identified and discussed, the pharmaceutical industry supports CME in forms of delivering lectures, paid trips, and sponsoring educational meetings. The medical practitioners were appreciative of the commercial support for their learning and pharmaceutical companies and doctors developed close relationships. Although this relationship

may be identified as a source of potential, bias practitioners denied the commercial role to the topics of the meetings. Opportunities provided to commercial companies such as delivering presentations, attending education meetings, and selecting speakers were been identified and discussed. It is concluded that, in a situation where an excessive amount of funding is being provided by the pharmaceutical industry, which is currently unregulated and unmonitored, might be inviting bias.

In the following chapter, medical library challenge is examined in detail.

Chapter 8 Medical Library Challenge

> "Many studies demonstrate conclusively that the use of appropriate information sources results in significantly better patient outcome and fewer medical errors and has a significant impact on physicians' practice of medicine" (Khudair & Cooke, 2008: 4).

Introduction

This chapter examines the status of Saudi Arabia's government hospital libraries, with the aim of providing an insight into whether or not the present hospitals' medical libraries fulfil the needs of health care professionals and also of identifying any obstacles, they may be encountering. This chapter is organised in to three sections: the result from the interviews, the survey results and finally an integration of data from interviews and fieldwork.

8.1 Data obtained from the first group of interviewees

Table 8-1 shows the views of the first group of interviewees (the education representatives) regarding the medical library's major difficulties.

Table 8-1 Aspects of library challenges (N=33)

Problem	No. of participants	Illustration
Poor library	20	Small space
	19	Temporary subscription to international e-journals
	18	Old textbooks
	14	Limited PCs and internet access

As shown in the above table, the majority of the interviewees identified the library's small size as being a problem; their observations were that the space was either too small or, even in cases where it was a reasonable size, it still did not meet their requirements.

The second obstacle identified by participants (n=19) was the temporary nature of subscriptions to international e-journals. Some doctors revealed that their institutions' subscriptions to e-medical journals were made only on a trial basis; this is because commercial agencies sometimes offer free subscription for limited periods.

A large number of participants (18 participants) also criticised the hospitals for not offering recent and up to date collections of textbooks and hard copy journals.

For example, according to two of the participants:

> "Our books are over 5 years out of date'' (Med Const 2, site 2).

> "If you go to the library you will find a lot of members of staff there connected to the internet rather than reading the old books" (Chief Para Med, site 3).

It goes without saying that, particularly in view of the deficiency in textbooks and periodicals in the libraries, the internet is a vital resource for keeping staff in contact with the most up to date research and review articles. However, 14 participants reported that a limited number of computers were available in the library along with limited access to the internet.

As a result, one library relied heavily upon the inter-hospital loan system whereby they could request books and journals from nearby hospitals or from the city hospitals in Riyadh. One participant described the state of the library at his hospital and the alternative method they used as follows:

> "The library provides only temporary internet access to the e-journals. However, sometimes we get help from other hospitals in Saudi Arabia, either in Riyadh or in the same city, to get the journal or article we are looking for" (Med Const 2, site 2).

Since this problem is likely to continue to exist for quite a long time in the coming years, some members of staff, at least for the time being, used their private internet

connections and access as they wished to keep themselves up to date in their specialist fields.

> "... and the internet is limited. We use the internet from our homes" (Chief Med 2, site 2).

> "Unfortunately, the library does not have enough books or recent journals, internet access is limited, so we use our own access from home" (Chief Med 1, site 3).

> "The internet is accessible in the hospital but accessing journals is done through our personal log-in subscriptions" (Med Const 3, site 2).

When preparing for a new medical activity, some organisations were obliged to use other accessible channels to compensate for the inadequate library resources. Some participants revealed they communicate with other advanced hospitals to share common training programmes. In addition, they sought the assistance of pharmaceutical firms who offered to conduct lectures for members of staff or teach them how to use the equipment they supplied. In this regard, a participant stated,

> "Companies sometimes conduct lectures... because most of the representatives are doctors... we also use a lot of their equipment so they also teach nurses" (Chief Para Med, site 3).

Another said,

> "The best example of this [type of activity] that we have just finished, for example, is that of a senior pathologist who graduated from Boston. We actually rescheduled our educational activity, a transplant programme, and gave him the opportunity to deliver lectures and conduct tutorials just to utilise his expertise" (Med Const 1, site 1).

Also, other alternative resources were the telemedicine service, and outreach programme with national and international institutions. These services were available at all three hospitals. Chief of medicine 3 (site 2) stated,

> "We have an outreach programme in collaboration with King Faisal Specialist Hospital (which is situated in Riyadh). They send their consultants in different sub-specialities to work on difficult cases and to give lectures. We have locums, consultants who come for one month maybe to teach staff and to provide clinical services".

The resulting dismal state of the libraries is a major hindrance to providing continuous medical education. The libraries current status could be described by limited space and inaccessible locations, limited internet access, and the non-availability of recent books and periodicals. These deficiencies in resources led the professionals to compensate by seeking the assistance of locum doctors, the interlibrary loan system, pharmaceutical firms, telemedicine, and share ready-made training course.

8.2 Data obtained from the questionnaire

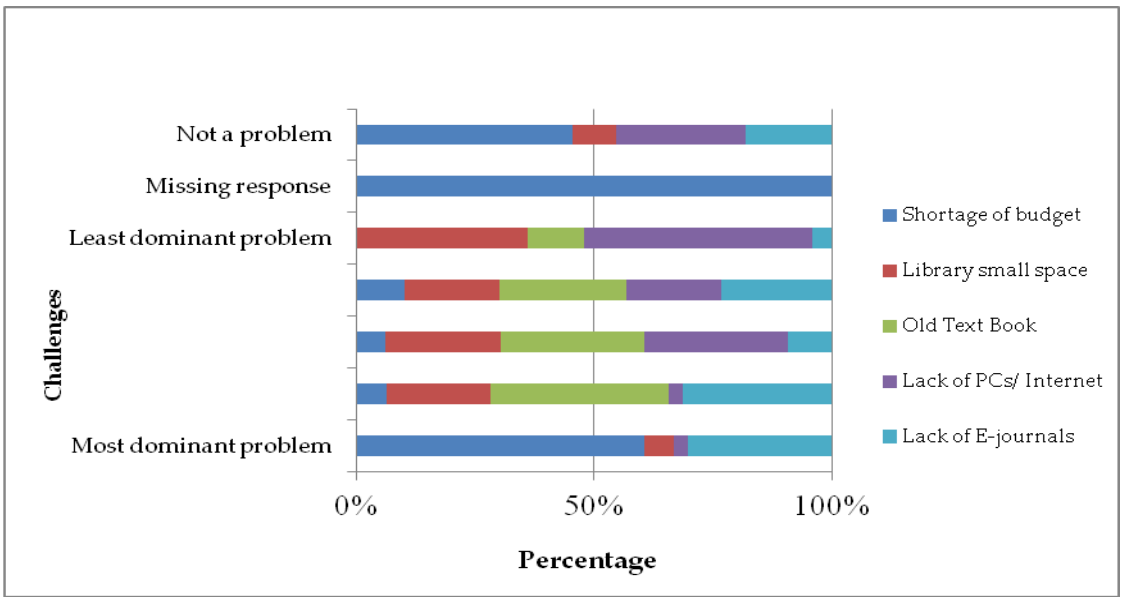
As mentioned in the previous chapter, both the library and the budget were placed in the 'Resources' category in the questionnaire. In this category, participants were asked to rate the associated problems on a scale of 1 to 5. They could also identify a topic as not being a concern in their institution.

On a scale of one to five (1 = the greatest problem to the participants; 5 = the smallest), the respondents were asked to rank their perceptions regarding the extent to which they considered the various management aspects to be important in their hospitals. Descriptive statistics of the responses to the Resources category are shown in Table 8-2 and Figure 8-1 next.

Table 8-2 Ranking of resources challenges indicated by respondents (N=33/3 hospitals)

Problem	Count 1	Count 2	Count 3	Count 4	Count 5	Missing response	Not a problem
Shortage of budget	20	2	2	3	0	1	5
Library small space	2	7	8	6	9	0	1
Old Textbook	0	12	10	8	3	0	0
Lack of PCs/ Internet	1	1	10	6	12	0	3
Lack of E-journals	10	10	3	7	1	0	2

Figure 8-1 Frequencies of the shortage of resources indicated by respondents (N=33)



As illustrated in Table 8-2, the lack of e-journals was considered to be the next major problem after the budget shortage (discussed in the previous chapter). 10 participants each (a total of 20 respondents) ranked it 1st and 2nd. The second issue of concern was old textbooks. No respondents put this in 1st place but 12 respondents ranked it second, and it was also ranked 3rd and 4th by ten and eight respondents respectively, indicating that this aspect was seen as a significant problem. The third most pressing concern was library space, with 2 and 7 respondents (a total of 9 respondents) ranking it 1st and 2nd respectively.

With regard to the shortage of computers and poor internet access, only one respondent in each case placed this 1st and 2nd. However, a significant number of participants (10, 6 and 12 respectively) ranked it 3rd, 4th and 5th.

8.3 Data obtained from both interviews and the field visits

In this section, the major problems identified by the interviewees are discussed together with data from the observations. Generally, the data indicated that the hospital administration might be contributing to the main problems facing the medical libraries. This challenge along with its implications that were divided into five categories: library building, budget, rules and regulations, staffing, and services, will be discussed next.

8.3.1 Administration challenges

The lack of awareness of health officials of the significant role of libraries in learning might be the principal cause contributing to the main administrative complexity facing medical library services.

One librarian declared,

> "A considerable number of companies providing the service have been selected by the administration office but the time for implementing this service has never arrived" (Libr 1, site 2).

One participant described the world of books and libraries as a "running stream" that provides rich information to every individual and service (Libr 1, site 1). However, he stated that it had always been a struggle to ensure a continuous supply of new editions of books to update library shelves. Government rules neither permitted the departments to make direct purchases from international publishers nor allowed them to use online purchase systems. All purchases had to be made through the finance department; however, the librarians blamed the bureaucratic system, and the complexity of the financial rules and procedures for this situation.

The lengthy procedures involved in purchasing books and materials from the very limited number of national bookstores meant that the libraries were still deficient in such resources and new textbooks could not be added on a regular basis. Also, only one purchase order was processed every year. This meant that books that at the time of the purchase were unavailable in the bookstore could not be ordered until the following year. One participant commented,

> "Sometimes, it is already too late for a book to be ordered a few months after its publication" (Libr 2, site 2).

Additionally, according to the purchasing procedure, the government would only pay contractors for books and periodicals after delivery, whilst the suppliers' policy was that they should be paid in advance. Surprisingly, there was only one national vending company in the Kingdom, located in Riyadh, through which they could order the periodicals. This is the result of a monopoly in the Saudi market. Hence, some respondents commented that, despite their efforts, they failed to obtain the new books and subscriptions to journals.

A further obstacle created by the government's purchasing policy is that prior to deciding on a company to supply selected services or necessary items, the hospital should first have compared offers made by a variety of supply companies for the same order. This is done by posting an advertisement inviting interested commercial companies to place, within a specific date, their bids relevant to certain items or services. A decision is only taken once three different suppliers have reached the finance department.

The participants explained that financial authorities and the government procurement system require hospitals to make their purchasing decisions based solely on the lowest bid offered by suppliers, regardless of other considerations or of the quality of the materials or equipment. Usually, this leads to the selection of low

tenders or to delays in delivery and all of these tend to generate a sense of frustration and poor job satisfaction amongst practitioners. One participant affirmed,

> "The finance department often selects the cheapest offer regardless of the quality of the service or equipment" (Libr 7, site 1).

During my visits, it was obvious that, perhaps owing to the shortage of library facilities, some visitors came to the library merely to read the daily newspapers or to check their email, as computers were unavailable in their hospitals' units and offices.

Therefore, all the librarians urged the hospital administration to give more consideration to library requirements. They argued that some of the country's chairpersons lacked awareness of the medical library and condemned the lack of cooperation by the main administration and finance departments in dealing with library requirements since they considered it to be an additional burden. According to one participant,

> "Lack of awareness on the part of the hospital's main administration about the importance of specialised libraries in their establishments is the main reason for the weakness of this side" (Libr 3, site 1).

Other participants argued that because those people in charge were not professional administrators, it was commonplace for them to pursue their own interests. One stated,

> "It is only normal for this person to concentrate on his specialisation rather than any other concern" (Libr 1, site 2).

> "If an employee doesn't have a place to work comfortably, he cannot give his utmost to his work. Improving the computer system, improving the Medi-com and improving the library internet are a must. The administration should know that the internet should be accessible in all the departments, not only in the chiefs' and the managers' offices" (Chief Para Med 1, site 2).

8.3.1.1 Library building

It was quite obvious from the field visit to the libraries, the size of the libraries did not match each hospital's capacity, which ranged between 350 and 600 beds, the numbers of staff, or their need for privacy. Generally, there was limited space available that could accommodate only 25 to 30 persons at a time. Since they were offered an inadequate amount of space for materials, a reading area, or for other activities. The reading areas of the three libraries were divided into two separate sections for males and females, as dictated by Saudi culture. The otherwise peaceful environment of two of the libraries was being disturbed by the noise from various photocopying machines and lights. Two libraries contained some old and unused equipment located within the limited available space.

The physical locations of the libraries were another problem. One library was located in a cellar next to the morgue with few windows and was very dependent upon artificial illumination, while another was situated far from the main hospital building in an inaccessible location inside the staff accommodation campus.

> "The library location and appearance are important to attract customers…An ideal medical library should have enough space for the users to reflect its nature and contents" (Libr 1, site 1).

Another librarian stated that,

> "I can summarise my comments into a few points: the library does not have a peaceful atmosphere since it is located close to the toilets and the corridor. The shelves are designed for the pharmacy, for drugs, not for books, and they are irritating and unsafe. The ceiling does not conform to safety requirements, and there are no emergency exits" (Libr 3, site 2).

Although this librarian felt the library was deficient in several basic requirements and lacked safety measures, the hospital administration did not see these issues as important enough to address.

Unfortunately, none of the libraries had any space for potential future expansion, and consequently, providing more utilities or services was unfeasible, as pointed out by one of the librarians:

> "The medical library is inadequate and there is no possibility of expansion. There was a plan to move the library into a different, spacious building inside the hospital campus. However, it was still a long way from the main hospital building" (Libr 2, site 3).

On the other hand, some of the participants revealed their million-Riyal proposals for building advanced education and training centres, including competitive libraries, in the future. For instance:

> "We have a project 'Insha Allah' (God willing) waiting to be started, which is a building for research and training. It will cost around 10-15 million Riyals (£167,000 – £250,000); we are trying to start with this project. We will have a big independent building just for training and higher education. It will have classrooms, conference rooms, an animal lab, a research lab and an electronic medical library" (Chief Med 1, site 2).

> "We are going to have a separate training and education building that will have a large library. The project will cost about 30 million Riyals (£500,000), and will be completed in two years, God willing" (Para Med, site 1).

Needs a concluding statement- e.g. Thus although some libraries encounter physical limitations and little was being done to addres them the situation varied enormously and there were plans for major investment in some hospital libraries.

8.3.1.2 Budget

Most librarians revealed that there was no specified annual budget for the library. This absence of transparency led to a lack of concerted effort amongst the staff and the planning team. Librarian 1 (site 1) stated,

> "The ambiguity of health system regulations and lack of transparency in the library budget are the main obstacles the librarian faces in setting up the annual plan".

One participant stated that the library did not have its own budget; instead, it was part of a single item including both library and hospital printed materials and publications. The latter consumed most, if not all, of the budget and there was hardly any money remaining for the library and its annual requirements:

> "Library, hospital publications and patient files are all assigned under one item which receives only 200,000 SR (≈ £40,000). This item is a shared one, with the library hardly receiving 30,000 SR annually. This barely provides enough financial support to secure up to date medical books" (Libr 3, site 2).

On the other hand, one respondent described a situation, the result of an official government directive, in which, although the budget could not pay for even small amounts of photocopying for hospital staff, the library was not permitted to pay for outside services (owing to concerns about potential abuse of the system):

> "Although the budget cannot cover even a limited quota of free photocopying for hospital staff, the official government system means that the library cannot offer paid services either, since this may represent a risk for those managing it, however strict the rules are made to govern collection and spending" (Libr 2, site 2).

The librarians argued that they should be fully aware of the budget so that they could plan the services, and maintain the credibility of the library staff. Furthermore, a participant suggested that each chief of department should be provided with a certain budget, and according to that sum, he/she should decide which books and journals were suitable for his/her department and speciality. This collaboration between the library and other departments would be preferable in order to avoid different departments duplicating orders. Besides, departments were considered to be more aware of their individual needs for reference books etc.

8.3.1.3 Library rules and regulations

At one hospital, there were no written library policies and procedures or staff job descriptions. Even at the two hospitals which did provide job descriptions, I found that these were not very detailed (Appendices No. 12 and 13).These deficiencies in implementing policy and in assigning duties led to chaotic situations and interference in their responsibilities. For instance, in one library, a member of staff collaborated with the librarian in choosing which international classification chart the library should follow. One librarian claimed that medical staff from different educational backgrounds recommended different theories regarding library classification, which conflicted with the method, which he, a librarian, had suggested. He gave the following example:

> "A paediatrics book entitled 'Diagnostic Imaging Pediatrics' should be classified under Paediatric Treatment. Some people think books should be classified under their titles, but librarians think this should be done according to the books' content" (Libr 1, site 1).

Participants emphasised how important it was for administration to set up and enforce regulations in order to improve library services. One participant stated,

> "It is deemed necessary and very important to activate and monitor policies if we want to motivate staff and improve their performance" (Libr 4, site 2).

8.3.1.4 Staffing

The participants claimed that staffing was the backbone of their library service. The number of librarians working in the libraries ranged from a minimum of two to a maximum of five. This shortage of staff resulted in difficulties, especially during staff annual leave or sick leave, in running the libraries six days per week. One librarian suggested that providing prompt service in the library required an extra member of staff.

Furthermore, it was quite evident that another obstacle was a lack of qualified staff operating the library. Table 8-3 below shows the academic qualifications of library staff. Despite the librarians' experience in running library services, nearly half were unqualified in medical library science. As shown in the table, only five librarians had specialised and held masters' or bachelor degrees in medical library science. The other bachelor degree holders were qualified in other subjects: the science of administration, history and nursing, while the participants with an undergraduate qualification had diplomas in computer science.

Table 8-3 Academic qualifications of the librarians in 3 hospitals

Qualification	Head of the library	Staff
Master of Library Science	1	0
Bachelor of Library Science	2	2
Bachelor of different disciplines	0	3
Below university level	0	3

8.3.1.5 Library services

Library working hours

Two libraries opened six days a week from 9 am to 9 pm, and one library had more limited opening hours - from 9 am to 5 pm. Owing to the high workload of members of staff and in order to offer an around the clock service to health care organisations, some librarians suggested that libraries should offer their services 24 hours a day/7 days a week. However, the librarians felt that they were being held back from doing what they wanted by hospital rules and a shortage of staff.

Equipment and maintenance

The librarians reported that not only was the number of computers inadequate but also that they were outdated and did not work well. When technical problems occurred, the respective Information Technology departments did not cooperate

with the libraries. They were not always prompt in solving the problems, which left some computers out of order for significant lengths of time.

Furthermore, some of the other machines (e.g., photocopiers, printers, bookbinders etc.), were also left un-maintained for a long time. Two participants stated that, owing to a lack of maintenance, most of the equipment and computer sets were damaged or out of order. Some of them remained out of order for more than a year because of technical or financial difficulties and, in some cases, experts from abroad were needed to fix the problems. One participant stated,

> "The maintenance company refuses to secure maintenance for the photocopier in the library despite its being partially used for free photocopying for the hospital… this leaves the copier down for long periods" (Libr 5, site 1).

The reason for the lack of maintenance of equipment was that some hospitals had no clear purchasing and maintenance policy with suppliers. Besides this, companies' reactions could also be explained by government delays in the purchasing process and in paying companies. This latter, therefore, might reduce the number of maintenance contracts.

To conclude, the medical library plays a highly significant role in supporting the development of health professionals' knowledge. The professionals said they need to consult the health sciences library on a regular basis to obtain information for clinical work, teaching and examinations, or for other purposes, such as supporting patients and helping in decision-making. I had conversations with several library customers and librarians, some of them were candid enough to complain about the sad state of the libraries, especially the problems pertaining to the shortages of budget and staff, limited space, and a lack of the latest textbooks and medical journals, not to mention the old computers and non-availability of a high-speed internet connection. The library users were disappointed and dissatisfied with the facilities provided to them and blamed the administration for their lack of interest in improving the library

status. The auxiliary services offered in most of the libraries were basic and were limited to copying, scanning, binding and printing. This lack of major services clarifies the reason why the librarians did not mention the absence of some of the other essential services, such as an audio-visual bilingual collection, or an abstracting and translation service, that were essential owing to staff diversity, and to the fact that all materials are only in English.

8.4 Summary

Despite the significant role of medical libraries, the outcome of this chapter confirmed that the absence of competitive medical libraries in health institutions is one of the core difficulties that impede the enhancement of continuing medical education in Saudi Arabian hospitals. This chapter has explored the difficulties that health professionals were experiencing in using hospital libraries. A wide range of obstacles caused by the hospital administration and the overlooking of staff learning were identified. These included the vagueness of the library budget; the uncertain rules and regulations, inappropriate library buildings, a shortage of library resources, inadequate staffing, and deficiencies in library services, and discussed each item in detail. These findings led to the conclusion that the current state of medical libraries hinder the development of CME.

In the following chapter, staff challenges is examined in detail.

Chapter 9 Staff challenges

Introduction

The main aim of this chapter is to examine the suitability of the current learning programme with the presence of employees from a wide range of cultural and educational backgrounds. In order to do this, I will explore the attitudes of health workers towards learning, and look at the learning process.

The chapter is organised as follows: first, the survey results relating to staff difficulties with learning programmes, along with data from the interviews about the participants' views on their experiences and the challenges they are facing in the educational process are presented. I will then discuss various difficulties associated with the learning programme itself.

9.1 Staff challenges that emerged from the data

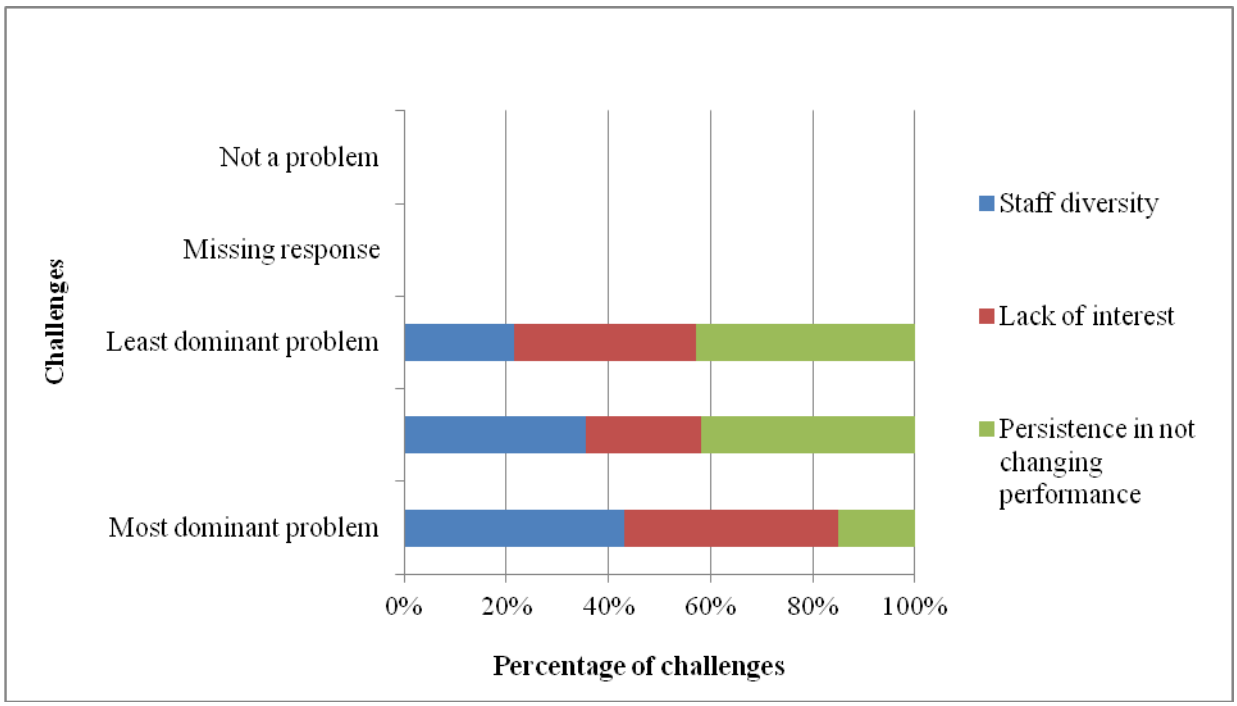
This section is subdivided into two parts: the results of the survey that illustrate the challenges facing continuing medical education because of the health professionals themselves (see Table 9-1 and Figure 9-1), and comments made by the respondents from the interviews regarding staff experience with continuing medical education.

Table 9-1 Ranking of staff challenges indicated by respondents (N=33)

Problem	1		2		3		Missing response		Not a problem		Total
	Cnt	Pert	Cnt	Pert	Cnt	Pert	Cnt	Pert	Cnt	Pert	
Staff diversity	14	42.4	11	33.3	8	22.2	0	0	0	0	33
Lack of interest	12	41.3	9	21.2	12	36.7	0	0	0	0	33
Persistence in not changing performance	5	14.7	13	39.4	15	44.1	0	0	0	0	33

Cnt= count Pert= per cent

Figure 9-1 Respondents' views about staff challenges (N=33)



As shown in Figure 9-1, the problems were ranked from 1 to 3, with 1 indicating the most important problem according to the participants, and 3 indicating the least important.

Table 9-1 shows that staff diversity was seen as the major problem in this category, being ranked '1' by 42.4 per cent and '2' by 33.3 per cent (a total of 25) of the participants. With only a slight percentage difference, lack of interest in learning was considered the second most important problem, being ranked '1' by 41.3 per cent and '2' by 21.2 per cent (a total of 21) of the participants. Not changing their performance was cited as the third most important problem, with 14.7 per cent of participants selecting '1' and 39.4 per cent selecting '2' (a total of 18 respondents).

Obstacles of the diversity of staff on Saudi health care are discussed in (chapter 4). Nevertheless, some participants highlighted a significant challenge that could also affect the learning process in particular; they stated that although communication is very important in order to deal with different nationalities and different staff attitudes, it is generally poor:

> "Staff find it very difficult to speak to the head nurses; you know we are of different nationalities. Asian members of staff are hesitant and scared of speaking to Western head nurses"(Chief Para Med, site 3).

The following section investigates other challenges, the staff interest in attending courses, and staff views regarding new practices.

9.1.1 Staff learning behaviour

The data also indicated that incentives for staff to attend and participate in medical activities are low:

> "I wish the staff who are involved in the learning programme could be better motivated to keep them going and to improve the service" (Chief Med 1, site 2).

> "The other difficulty is the interest of the people concerned. Most of the time we plan a course for an average of 20 to 25 persons, but the attendance is always lower than this" (Chief Med 3, site 3).

> "The difficulty is how I can convince the hospital staff to participate in continuous education" (Dir Pst Grad Tran, site 1).

This hospital however was attempting to overcome this difficulty by offering payment to encourage workers to do some teaching; the reward attracted staff members to teach, and they offered more free courses to attract staff to attend meetings.

Another participant was not satisfied with the slow response of hospital department heads when requested to submit their proposed annual courses. He claimed that this reaction reflects a weak interest in learning more than they just needed to be reminded:

> "We usually circulate a memo to all hospital departments around the beginning of June, asking each department to submit their proposed programmes for the coming academic year. For instance, last year, unfortunately, the response was not prompt, so reminders were sent for a

second time, and personal contact was made. After that, 90% of the departments submitted their programmes" (Dir Acad affairs, site 1).

9.1.2 Staff and new practice

Some respondents pointed out that learning involves improving old practices, and advancing the attitudes and behaviour of professionals towards new and more up to date performances. However, some staff experienced difficulty in trying to change practices that have been in place for a long time.

> "The problem we sometimes have is resistance from the staff, especially the senior staff, to any attempts to change. They will attend a course but they do not change. They just attend to get the certificate'' (Chief Med, site 3).

Similarly, another participant agreed that learning programmes assist in developing skills but thought they worked better with young professionals based upon the assumption that they assimilate new knowledge and techniques faster.

> "Young graduate Saudi nurses learn fast, and are very enthusiastic and eager to learn. They are interested in the work and interested in learning new practices" (Chief Para Med, site 3).

In fact, many of CME attendees disclosed to me that they were after credits only, and many respondents pointed out that a key factor of learning is the ability to stimulate self-learning. However, they said that the belief in self-directed learning and improvement was not shared by all professionals.

> "The learning programme has a big role to play in influencing professional development, but I think the most important aspect is that the person has to have passion and integrity, ambition and commitment in order to develop professionally, and unfortunately that is what we miss in our staff" (Dir Quality Mang, site 1).

On the other hand, during my observations, some CME attendees stated that involving health workers in the design of courses and in deciding on topics could be an effective way of motivating them to attend courses and learn. It would give the

programme more value as it would then reflect the needs of staff and include their input. A nurse (site 2) commented:

> "Staff would feel that the teaching programme was planned in order to invest in them, and that they were an important part of the learning process from the start. Consequently, employees would be more inclined to attend such programmes".

The mixture of staff backgrounds presented a challenge to education providers. Employees' skills do not conform to a single standard, and many employees were perceived to lack any enthusiasm for self-directed learning. Therefore, the commitment of staff to learning and improving traditional performance were often found to be very low, and some employees might attend for recertification only. However, staff attitude and involvement issues are closely linked to the learning process, and will be explored further in the following section.

9.2 Learning programmes

In order to investigate the reasons for the negative attitudes of members of staff towards education, this section explores a number of factors worthy of consideration. These factors are categorised into various aspects including methods of identifying staff needs, and delivering medical activities, standardisation, and evaluating the medical activities.

9.2.1 Methods of deciding on activity and content

Participants stated that in order to raise the performance level of the health care sector, decision makers must concentrate more on staff development and activation; scientific methods, should be used to determine the staff's needs for educational programmes, as opposed to individual decisions and interpretation. However, they revealed that methods of identifying staff needs were limited, being based mainly on staff direct requests and the observation or interests of the chiefs of medical departments.

Departments sometimes asked members of staff about their training needs and also asked them to put forward suggestions for education and training subjects. The department chief then revised the information given, filtered it, and submitted it to the education department. Moreover, from meetings I attended, decisions concerning learning needs were mostly influenced by the views of senior doctors, observation of daily practice or bedside teaching, and reviews of recent topics and research in international journals. Sometimes they included other factors such as cases of morbidity and mortality in the hospital and the total quality team. Additionally sometimes, the staff themselves requested a particular activity.

Here are some of the participants' experiences of attempting to determine staff training needs by asking staff or chief interest and observation:

> "By asking them. Sometimes some of them they do ask for things. With others, you need to pick it up for yourself by making them take exams or bedside testing" (Chief Med3, site 2).
>
> "In fact there is no objective way of selecting these programmes. It is left to individual opinion" (Dir Acad affairs, site 1).
>
> "We have difficulties in selecting the right subjects for education and training and in prioritising them; the proposed subjects are usually selected on an individual basis and according to individual interests" (Med Const, site 1).
>
> "Some of the topics I have presented are based on a guess or on ideas forwarded by colleagues about what staff don't know, and which I need to provide" (Chief Med 3, site 3).
>
> "My experience is that the selection of topics for education or training is based on individual interests rather on group or patient needs" (Mang Edu, site 2).

Further consequences of the lack of an objective way of selecting educational programmes are that some hospitals may have a very advanced learning programme, but they are overlooking basic points; this is a major defect, which causes trainees a lot of problems. In addition, my observations of CME attendees' reactions revealed

that topics are unvaried, and are often duplicated and concentrated on particular topics.

> "In the Kingdom, education planners are concentrating on educational activities about cardiac diseases with a lot of repetition. What about other things like internal medicine for instance? We have many patients with diabetes, hypertension, cholesterol and more'' (Chief Para Med, site 3).

Some participants affirmed that the key factor in the success of any programme is staff involvement. If the staff themselves are allowed to determine the topics and the type of educational methodology they can absorb, this will motivate people to learn, enable them to exercise their right to choose, and direct their professional development path. It is therefore very important for health professionals to know how to express themselves and their needs. However, as discussed in chapter (2) not all professionals can identify their actual needs, and sometimes employees select learning programmes that are not appropriate for their development, but the responses indicated that what they had done was based on personal effort, rather than on scientific methods of identifying learning needs. Unfortunately, learning needs assessment is underutilised because most departments are unaware of the existence this tool. However, some participants suggested that involving staff must be based on strategic planning and be in line with their educational career path.

9.2.2 Methods of delivering activities

At present, most activities are delivered in traditional and theoretical ways that are based on passive learning. Some participants said that some programmes were very good in principle and in terms of their objectives, but they may be conducted poorly or in a way that caused them to deviate from their original goals.

The participants emphasised the fact that the educational process should be based on a solid theoretical and clinical background. They called for courses that require more contributions to be made by the audience, rather than a learning programme based

solely on lectures. They actually expressed the need to improve the instruction methods that involve more interaction with the audience, open the door for healthy scientific discussions to take place, and therefore maximise and intensify the amount of information learned. Types of such activities include tutorials and workshops:

> "To establish a good learning programme, educational activities have to be varied and not just theoretical" (Dir Acad affairs, site 1).

> "The key to success in any learning programme in a hospital setting is clinical education teaching, which unfortunately we don't focus on currently" (Med Const, site 1).

Furthermore, the chief paramedic on site 3 expressed the view that the variety of backgrounds of members of staff affects the way in which activities are carried out:

> "We find group discussion very difficult in terms of it being accepted by staff, as different ethnicities receive suggestions differently."

9.2.3 Standardisation of educational programmes

Participants expressed the belief that courses lack s lack standards, regulations, and guidelines on what is needed from the course. On this basis, some of the participants shared their ideas for overcoming it such as comparing their programme to surrounding hospitals or programme accredited internationally; the following is an example:

> "Our programme does not have standards, but we try our best to achieve a standard comparable to that of surrounding or nearby hospitals" (Med Const 3, site 3).

> "We compare our learning status with that of other programmes around the globe, and try to get help and advice from other supervisors around the world" (Med Const 2, site 1).

> "In order to establish any learning programme, the first phase we are going to face is difficult: that is, when we are holding meetings with other colleagues from all around the country who are graduates from different universities

from around the world, with different backgrounds and training. The different perspectives can be a problem. These things can be minimised by sticking to policies and programme rules that have been accredited by American institutions or any other associations with a high reputation" (Med Const 2, site 3).

Two participants revealed that owing to the lack of standards and the differing educational levels of staff, they showed less interest in bringing staff together in learning and the method was to choose simple activities and language.

> "We are of different nationalities and different levels of education, so we try to make courses simple" (Med Const 4, site 1).

The participants therefore demanded the establishment of guidelines and rules for standardised programmes in the country:

> "There is a need to build programmes based on national or international standards" (Med Const 2, site 3).

9.2.4 Evaluating CME

The participants indicated that there was a severe lack of formal written evaluation of medical activities, and that they were just observing as of this moment.

> "Currently no. My evaluation here is by their responses; sometimes they tell me if they are happy with the activities. We keep asking them for their feedback, but nobody comes forward, so sometimes I allow things to remain as they are according to my plan" (Med Const 1, site 1).

Most participants said that their evaluations were carried out in an informal way by listening to feedback and receiving verbal impressions:

> "I do not have time for written feedback, but we are glad to hear comments and feedback from the audience and from speakers" (Chief Med 2, site 1).

> "I actually do not make any formal evaluations of my learning programmes, but usually it is very subjective matter, discussed through tutorials and

listening to their impressions and considering the deficiencies of my instructors and trainers" (Chief Med 1, site 1).

"We do ask trainees verbally about what we have provided: the content, how important it was, if it was related to the subject, how well it was conducted, and the audio-visual aspects" (Chief Med 1, site 3).

From the view of some participants, I had known prior to the study, they thought that written evaluation and considering the audience's comments were essential, since this would make it possible to avoid repeating mistakes on future courses, which in turn would ultimately improve the learning programme. However, they frankly said that they lack the necessary skills to carry out objective evaluation.

"I do not evaluate the courses; I need help to do it" (Chief Med 2, site 2).

"We do not evaluate our programmes. How can we evaluate them? I do not know how to do it" (Med Const, site 1).

"We evaluate ourselves verbally by checking the average activity attendance rate. We also evaluate the speakers, but I know this is neither sufficient nor efficient" (Chief Para Med1, site 2).

Medical departments usually utilised a standard form of evaluation that covers scientific and administrative arrangements. They assessed aspects such as the instructor, course content and media, quality of the material and handouts, and audience satisfaction, and some departments believed utilizing it was sufficient.

"We do evaluate our activities, using an evaluation form which includes the scientific content of the activity, the speakers, the venue, and the course material. Completing and submitting the evaluation form are pre-requisites to receiving the certificate of completion of the activity" (Med Const 2, site 1).

"We sometimes arrange evaluation forms for the speakers and the audience. We ask about the speakers, the quality of the activity, the venue and the audio tech aspects" (Mang Edu, site 2).

A few participants drew attention to the fact that they evaluated the activities but did not measure changes in staff performance after taking part in these activities, nor did they assess whether or not the objectives of the course had been achieved. They declared that they did not have an objective way of measuring these aspects and that they needed to improve their methods of evaluation.

> "We do evaluate the results of our programmes immediately after they have taken place through questionnaires and direct feedback from the attendees, but we do not evaluate the results in terms of their effect on work performance" (Chief Med 3, site 1).

> "We do so selectively, and it is aimed at assessing the suitability of the programmes, the educators or trainers and the timeframe. But we do not evaluate the effects of these programmes on the performance of individual employees" (Dir Acad affairs, site 1).

> "We evaluate the quality of the workshop itself, but not the effectiveness of the programme in our work. We do a survey as a routine. Sometimes we only analyse it in order to write the final report" (Mang Edu, site 2).

Furthermore, a suggestion made by Medical Consultant 3, (site 1) was that in each institution or hospital there should be a committee, which assesses learning outcomes, to avoid bias in the evaluation.

This section has addressed the issues of low attendance and lack of interest in learning by examining four aspects of learning programme process. Firstly, the traditional methods utilized for selecting activity and content such as observation or interests of chiefs, and direct requests from employees. Secondly, methods of delivering activities that are based mainly upon a passive approach. Thirdly, lack of standards and regulations of learning programme. Participants had their own ideas about solutions to this issue among which were comparing programmes to those of nearby hospitals or selecting programme criteria that have been accredited by reputable associations. Finally, the shortage of formal evaluations of medical activities was discussed and the available measurement methods ranged from

subjective evaluation of asking trainees informally, review of the average activity attendance rate, or by a standard general written form which covers scientific and administrative arrangements. Participants indicated that current evaluation methods target activities only but do not measure the effect on staff performance after participation.

9.2.5 Additional challenges

Recruiting the right trainers and instructors is another difficulty, and owing to a deficiency in national professional educators,

> "...The other difficulty is in recruiting educators and trainers for the programmes" (Dir Acad affairs, site 1)

Instructors are often selected from abroad. Deciding on speakers and the complicated process of invitation is another difficult issue that is affected by the bureaucratic process as mentioned in chapter (7). Furthermore, finding a time suitable for both international instructors and participants whilst also trying to avoid Eid, Ramadan (the fasting month), Christmas and New Year holidays is another challenge.

> "The problem now is with the different season, New Year, Eid and Christmas, we find it difficult to find suitable time for candidates and instructors" (Mang Edu , site 2).

9.3 Summary

This chapter has discussed the challenges encountered in the process of planning continuing medical education that include a lack of interest on the part of members of staff in attending training courses, and staff resistance to putting what they had learned into practice after attending training. Challenges related to the learning programme were identified, and discussed in four aspects include methods of deciding on activity and content, methods of delivering activities, the standardisation of educational programmes, and evaluating medical activities.

Finally, additional problems, including finding suitable times between Muslim and Christian holidays, and selecting appropriate instructors, were addressed.

The following chapter is the final chapter, and it summarises the findings, discussion and conclusions.

Chapter 10 Integrating the Findings- Discussion and Conclusions

Introduction

This chapter presents an overview of the study. The objectives of the research are outlined, and research questions are answered based on the themes identified. Conclusions drawn from the data are presented. Finally, possibilities for future research are highlighted.

Analysing the data derived from interviews with thirty-three CME representatives and eleven librarians, I sought to address the challenges of CME in Saudi's hospitals. In this chapter, I shall draw on some of the main themes that have arisen from the data, discussing them within the context of a wider literature on continuing medical education. Throughout this discussion, comments are made about the importance of the data presented within this study concerning this body of literature. The main issue, which has been an important theme running throughout this study, is the importance attributed to health managers in the current challenges of CME. This issue is contextualized in terms of understandings of Saudi social influence. This aspect has raised questions about the importance of health management in professionals' development and the impact on education programmes. Whilst not seeking to generalize beyond the sample used in this study, questions may be raised about the consequences of the management for CME. What may be considered barriers to innovation in continuing medical education (CME)?

I found managerial and administrative problems to be among the greatest challenges facing CME; managers' lack of awareness about the importance of staff development has a significant impact on CME, including ambiguity about the budget allocated for

learning programmes, the poor status of the hospital library, and the apparent lack of capability to plan a competent programme for the staff.

10.1 Research questions for this study

The research questions I addressed were as follows:

1. What is the current status of continuing medical education in Saudi Arabian governmental hospitals?
2. What are the barriers preventing continuing medical education from implementing competitive learning programmes?
3. How might Saudi culture be influencing the health context and how does this impact upon the field of CME?

These questions are addressed in the following section.

10.2 Question 1: What is the current status of continuing medical education in Saudi Arabian governmental hospitals?

In Chapters 3 and 4, I highlighted several difficulties pertaining to the health care system and CME in Saudi Arabia. Many of these issues were the result of rapid expansion of health care facilities, the late establishment of the education system, and were related to social fabric of culture influence on the health care system.

The last two decades have witnessed the establishment of many medical education departments, which have assisted in organising an enormous number of medical activities and programmes. The progress of the health care system has also included the establishment of many professional societies and health associations, such as the Saudi Commission for Health Specialities (SCHS). Its aim is to improve professional performance in the health care sector through setting up, accrediting, approving, coordinating and supervising training programmes in professional health specialities. However, (SCHS) was criticized for its weak role in unifying multiple

CME bodies, which made it difficult to ensure the quality and merit of CME (Albar, 1999; Al-Yousuf *et al*., 2002), and as a result, CME providers were viewed as focusing on the quantity rather than the quality of activities, and looking for short-term activities.

Furthermore, a significant phenomenon is that in this sociable society, custom tends to turn most educational events into social gatherings; this observation supports the findings of Beshyah *et al*. (2012). Commercial drug companies usually sponsor CME in Saudi Arabia, like those found in other countries, but the level of hospitality provided by the drug companies do not accord with the principles of medical meetings, they are exceedingly lavish. CEOs usually couple the CME activities with inviting stakeholders such as and the Prince of the region, along with the physicians and, of course, the press to cover the event to attain high social recognition.

Finally, the multinational working environment does not appear to encourage members of staff to improve their competencies, since foreign staff work in the country for only a short time and do not show any interest in participating in professional learning development. They are less likely to be devoted to their work need or pursue their training (El-Gilany *et al*. 2001; Sebai. 1981; Gallagher *et al.* 1985). Moreover, the health authorities were not found to be encouraging and motivating their human resources adequately. They might be hesitant about investing in a foreigner who will stay in the country for only an estimated average of 2.3 years (Walston *et al.*, 2008). Furthermore, the government's attempts at "Saudisation" have given only a minority of Saudi professionals' confidence that their government will not give up on them, even if they do not have professional training.

10.3 Question 2: What are the barriers preventing continuing medical education from implementing competitive learning programmes?

Question 3: How might Saudi culture be influencing the health context and how does this impact upon the field of CME?

I communicated the culture factor within the research questions, but it is presented and reported in light of the study themes. The major elements involved in creating the challenge of CME in Saudi Arabia's' hospitals related to the following issues:

10.3.1 Management challenge

The government has allocated huge budgets to health care, provided the best equipment, and built modern hospitals as reported in chapter (3). So what is going wrong? Of all of the challenges facing CME in the health care sector, the finding of this study was that a dilemma surrounding leadership is the principal problem.

The data showed that thirty out of thirty-three (90%) of the respondents identified management as the foremost challenge affecting the health professionals' learning process. There was mounting evidence in support of the fact that the health system lacked experienced management. Al- Qarawi (2011) states ''Health stakeholders can no longer blame a budget that reached more than 68 billion Riyals. The health system problem is managerial not financial'' (p: 5).

Chapters (3 and 6**)** discussed the popularity of physicians occupying senior management positions in health care providers and government agencies. The appointment of physicians to managerial positions is a common trend in Canada, the United States, the Netherlands, New Zealand, Australia and the United Kingdom (Leatt, 1994). To date, no empirical studies have been conducted to assess the effect of physician-leadership on hospital performance (Goodall, 2011). However, Goodall (2011) reports the results of the US News and World Report (USNWR) 'Honor Roll

hospitals' study - the CEOs at 16 out of 21 of the highest-ranking hospitals to which they awarded quality scores were physicians.

It is argued that the physician presence in management is crucial for the health care system so there is a collaborative approach to the decision-making process (Leatt, 1994; Goodall, 2011; Al-Shehri, 2003). Nevertheless, the literature emphasises the fact that doctors need to improve their management skills. In view of this, some medical facilities in the UK and USA have introduced leadership training to enhance the key competencies of the physician-leader, for example diverse short management and leadership courses, and 2-5 year graduate university programmes in health administration (Leatt, 1994; Goodall, 2011).

This is the positive international standpoint regarding the physician's role in the organisation. I will now present local perspective on this issue. Arab countries adhere to the principle of hospital management by doctors (Dayel, 2011) as explained in chapter (6), it was clear that physician-leaders dominate all senior positions in the participating hospitals, including some departmental administrative positions. However, this trend has come under criticism, and accused of being the main reason for deficiencies in health management (Mourshed *et al*., 2006; Islam, 2011; Dayel, 2011; Khursany, 2011; Al-Ahdab, 2011; Sebai *et al*., 2001).

Physician-leaders have the advantage that they possess essential built-in skills and values derived from their medical roles (Goodall, 2011; Al-Shehri, 2003). However, the problem here, as pointed out by the participants, is that the medical education curriculum in Saudi Arabia does not adequately prepare doctors with formal training in management disciplines. Khursany (2011) states that lack of academic preparation for management is a clear shortcoming of most physician executive candidates. Furthermore, the participants contended that clinical leaders assumed leadership roles without proper qualifications or required training in hospital and health management, teamwork, or finance. This finding supports the finding of Al-

Rabeeah (2011) who also clarifies that physician managers are not familiar with administrative and financial issues, which may put him in an embarrassing situation with officials. This could make him a dictator as far as administrative and technical powers are concerned.

A survey of mid-level managers by Al-Ahmadi et al. (2005) identified several managerial obstacles preventing the optimal delivery of health care, including the fact that the majority of supervisors (65%) had received no managerial training. Furthermore, Al-Abyan (2011) states that in a meeting with about 30 doctors who were hospital managers and health service leaders in the Western Region in the Kingdom, he raised a query about the number of people who specialised in or had received some training in health management among them: the answer was none.

A widespread belief in society and among the physician is that academic qualifications are not necessary for management, but that talent and experience are acquired through the practice of management (Borai, 2011; Al-Shehri, 2003; Sebai *et al*., 2001).

Such a deficiency undermined the managing doctor's ability to accomplish the health institution's goals and objectives and this may explain the presence of the serious managerial chaos and deterioration. Organizational structure is found to be more vertically oriented. Authority is highly centralised and highly bureaucratic, as discussed in chapter (6) this has had negative effects on the development of staff learning. The lengthy government procurement process, the complex purchasing procedures, delays in paying suppliers, and the bidding procedures frustrated the participants in this study.

Furthermore, this deficiency has a significant impact on the learning process particular capabilities; these can be categorized into three: managers' lack of knowledge, exerting influence over programmes, and developing programme for the sake of reputation:

Clinical-leaders appear to lack knowledge about the importance of staff learning. The participants described physician-managers as not knowing any more than the average member of staff about the process of CME. This is in line with the observations of Abdulla (2012) and Al-Rabeeah *et al*. (2009) that overlooking the professional development and health research in the country is due to the deficiency of health leaders.

Some physician-managers conducted medical events in order to gain status and fame without considering the real purpose of such activities. Health leaders value their personal concerns more highly than the goals of their institutions (Khursany, 2011; Peter et al., 2007). In addition, the hospital administrators exerted an influence over the selection of programmes for the sake of their reputations, tending to organise events related to their own specialities in order to enhance their image.

Physician-managers were biased in favour of their own health specialities and pursued their own interests and professions. Therefore, some medical activities were accorded a great deal of attention at the expense of others. Al-Ahdab (2011) comments that official interest in some medical achievements rather than others and strong competition from fellow director doctors is the result of bias. Moreover, the absence of any administrative regulations addressing the issue of abusing health care resources (Al-Falieh *et al*., 2009) could encourage executives to conduct medical activities according to their personal wishes, looking to enhance their own reputation rather than satisfying the needs of their staff.

Therefore, many participants encouraged more involvement of people with a non-clinical background in management. Involving qualified administrators would also be advantageous to CME, as they would consider all medical specialities equally. However, the health care sector is not paying full attention to creating administrative cadres who specialise in health management (Al-Alfawzan, 2011; Khalid, 2011; Sami, 2011; Saleh, 2011).

10.3.2 Financing the learning programme

Securing a sufficient budget was another obstacle when attempting to arrange or improve educational activities as discussed in chapter (**7**). In fact, lack of CME resources is a worldwide phenomenon (Al-Shehri *et al.,* 2001).

This problem could be a result of the limitations of funds available for CME, for example Al-Rabeeah *et al.* (2009) state that grants available for continuing medical education are minimal. Another possibility is the corruption that is said to be spreading across many government agencies including the health sector (Sebai, 2011). Budget lack of transparency and openness has caused corruption to spread across health care divisions (Islam, 2011). Health policies were blurred, and the details of budget allocation for learning and the budgets of medical departments were not revealed to the staff.

It is common in almost every country to find many providers of CME, however from my observation, in Saudi Arabia, there was the weak unification and integration of multiple CME bodies, which led to the duplication of medical activities and, therefore, to miss used of existing CME resources, this observation was also reported by Al-Shehri *et al. (*2001).

To overcome the high cost of running postgraduate medical activity, the pharmaceutical industry became the official source of CME financial support as discussed in chapter (7). Dependency on commercial companies, however, was found by participants to have an impact on academic plans for the future through reliance on the amount of their funding. Perhaps the most significant issue that arose from analysing the participants' views about drug companies' involvement was that nearly all the participants were grateful for this sort of funding, to the extent that some departments, which lacked policy and CME guidelines, put forward guarantors' feedback forms for CME events to measure company satisfaction (Appendix No. 11).

In Saudi Arabia, drug and medical equipment companies, like those found in other countries, frequently sponsor medical programmes. However, my observations may be summarised into the following few points: in the Kingdom there were no known efforts made by any formal body to control bias or improper influences on physicians' clinical practice that might be generated by companies' donations, as discussed in numerous Western studies (Richards, 1998; O'Brien *et al*., 2001; Fletcher, 2008). Doctors believed that guarantors have no influence over the scientific content of the events they conducted. The literature shows that this point of view is widespread globally amongst the majority of doctors (Vassilas *et al.,* 2006). Beshyah *et al. (*2012) state that at the moment, there are no national standards in the Arabic countries to regulate the role of pharmaceutical companies. Rules and regulations to monitor relationships among sponsors and physicians were either non-existent or ineffective. Company representatives were given the right to attend meetings with physicians and arrange events, and select a number of speakers according to the category of their financial support (discussed in chapter 7).

Another point is that in the UK and in most Western countries, such companies nowadays only provide sandwiches and small gifts; however, there is widespread concern about their influence on postgraduate medical education (Vassilas *et al.,* 2006; Fletcher, 2008). Parallels can be drawn between the Western system and that in Saudi Arabia's hospitals, as physicians frequently attended events and readily accepted banquets, accommodation and other gratuities that were commercially sponsored. The frequency of physician–industry interactions and the extravagance of social events crossed the line of prudence and might have the potential to create doubts about the independence of these events especially with the lack of CME-pharmaceutical industry guidelines and regulations.

10.3.3 Status of libraries

As discussed in chapter (8), libraries actually were in a poor state, they suffered from inappropriate location, small size, deficiencies in the latest textbooks and medical

journals, and limited internet and services. Some authors rated the Saudi medical libraries as very good in terms of their services, collections, and their use of Information and Communications Technologies (ICTs) (Dosary & Ekrish, 1991; Al-Ogla, 1998; Arif *et al*., 1998). Nonetheless, in more recent reports, Khalid (2000) and Khudair and Cooke (2008) have commented that the standard of library services in Saudi Arabia's government hospitals is lower than that in developed countries such as the UK and also in less developed countries such as Malaysia, which my findings support.

The absence of written policies and procedures is a major problem the Saudi Arabian health care services (Al-Rabeeah *et al*., 2009). Most librarians blamed the lack of rules, the bureaucratic system, and the complexity of the financial rules and purchasing procedures for this situation.

I found that the cause of some of the problems with the hospital libraries lies in the fact that there was no specified annual budget for the library at present. Al-Rabeeah *et al*. (2009) affirm that the status and quality of services offered by the other governmental sector are superior to those offered by hospitals operated directly by the government; the medical library services are no exception. These agencies fund budgets in excess of those that government hospitals receive from the MOH.

Libraries in Saudi Arabia's government hospitals have received little attention. When the original hospital buildings were being constructed, the authorities failed to reserve any appropriate spaces for the libraries to be located, and only allocated space for them when the building was ready for use. Most librarians highlighted that this shortcoming was the result of the lack of awareness on the part of the country's health chairpersons with regard to the significant role that medical libraries play. Other argued that those people in charge were practitioners and not professional administrators. As a result, it was commonplace for them to pursue their own interests and concentrate on their speciality.

The participants in this study revealed their own plans for future and more advanced projects, which entailed the construction of educational and training centres, including advanced medical libraries. Unfortunately, all these projects will take a long time to be achieved, at least five years taking into account construction time and the time it takes to get the library up and ready for use, as envisioned by some library users. Apart from the time taken for building, furnishing and arranging administrative matters, the long drawn-out process of choosing a company to run the project is another concern in most Saudi Arabian government projects, which may add more delays to the accomplishment of such projects. It is therefore likely that this problem will continue to exist for quite a long time.

10.3.4 Learning programme

The study found that CME did not provide a competent programme and that employees experienced several challenges in learning as reported in chapter (9).

The respondents highlighted the lack of a formal, clearly designed and organised educational programme. This concurs with others' findings. For example, Tumulty's (2001) study revealed a great need to reshape the learning programmes in Saudi Arabia as regard to nursing profession; the educational activities were devoted to basic supervision, providing in-service training courses, and endorsements. Basic daily activities were extremely time-consuming and as a result, little time was available for planning and implementing change.

There is no objective system for identifying staff educational needs; programmes are developed in a haphazard manner (Al-Fouzan, 2001; Al-Shehri *et al.*, 2001). The educational activities were based on desires and wishes rather than on real needs, the selection of programmes was made in accordance with individual opinion and the interests of senior consultants, department chiefs, the hospital administrators, or direct requests from the staff. This phenomenon 'wants versus needs' is by no means confined to Saudi Arabia but seems to be more prevalent. Walsh (2006) asserts that

physicians have a tendency to pursue further education in what they want and avoid topics where their knowledge is lacking.

Furthermore, the learning process tends to be characterised by a pedagogic approach and passive learning methods, whereas innovative and interactive approaches, including workshops and discussions were in demand. This corroborates Al-Shehri *et al.* findings (2001) that a major barrier to CME in Saudi Arabia lies in the mismatch between the activities provided and daily practice, since the majority of the educational activities offered do not go beyond the theoretical scientific basis of medicine and are not related to daily practice and patient care issues.

The outcomes of CME, therefore, appeared to have been inadequate to meet the professionals' educational needs. Individuals consequently exhibited low levels of educational commitment and motivation, and a high resistance to changing their practice after attending courses. Similarly, Al-Ahmadi *et al.*'s study (2005) found that many physicians (57 per cent) had never taken any educational leave, despite the fact that institutions provide some free or sponsored courses, and staff have the right to 14 days' educational leave per year.

Decision makers were not sufficiently engaged in issues associated with the planning and activating staff education development in a way that will ensure long-term productivity. Farooq (2003) verifies that, "developing a Continuing Professional Development plan for a developing country, where training and development inevitably take a back seat to meeting the basic needs of the population, is an uphill task" (p: 161).

Chapter (2) explained that professional development is rooted in self-directed reflection and learning in practice (Richards, 1998). However, a single hospital in the Kingdom often comprises many different nationalities, each with its own role perceptions, behaviour, attitudes towards learning, and educational background. Such a diverse workforce constitutes a significant challenge for education planners.

However, this heterogeneity is not taken into account when designing continuing medical courses. Although learning needs assessments (LNAs) are likely to contribute to the ultimate objective of providing high quality learning by identifying different needs at all levels, as discussed in chapter (2), however, none of the participated hospitals employed this process. Furthermore, Al-Shehri *et al.* (2001) affirm that (LNAs) have not so far been utilised in hospital education in the Kingdom of Saudi Arabia

In addition the fact that practitioners tend to choose educational activities that fall within their comfort zones (Al-Shehri *et al.*, 2001, Walsh, 2006), and the low enthusiasm of staff increase the demand to apply a form of learning needs assessment (LNA) in educational procedures.

In this section, I have addressed the objectives of the research, and discussed the four main deficiencies in CME. The research highlighted the dominance of unqualified physicians in health management as a major constraining factor. Physician managers were assigned without proper qualifications or preparation in leadership, and my findings demonstrated the significant impact on learning process that resulted in managers' lack of knowledge, exerting their influence over programmes, and developing programme for the sake of status. Secondly, I discussed the budgetary constraints attributed to lack of transparency and openness resulting in heavy reliance on pharmaceutical industry to support postgraduate education, and highlighted the threat of this correlation without guidelines. Thirdly the poor status of the medical libraries, and the fact that the limited resources currently available in the medical libraries cannot be helping the development of CME. The bureaucratic system, the complexity of the financial rules, and purchasing procedures contribute to this situation. Finally, I highlighted the deficient learning programmes, which are generally not based on innovative methods of identifying staff needs, and delivering material in a passive way.

10.4 Conclusion

Some data was obtained from some individuals with whom I was acquainted before conducting the study; they answered my queries truthfully and frankly, and also assisted obtaining other cooperative participants and sources of information. However, any conclusions drawn from this research must be tempered by the limitations of the study (as discussed in chapter 5), political constraints around expressing difficulties in the country, and when considering the voices that have not been heard in the study. The study however identified that continuing medical education in Saudi Arabia is facing many difficulties and challenges that need to be addressed carefully, so that the potential of CME can be fulfilled. I draw conclusions in three areas from the study, namely: the teaching system of medical education universities in KSA, health authorities, and the Saudi culture.

The teaching system in universities

Chapter (4) discussed the medical education system in Saudi's universities; it underscores the use of lectures and other didactic methods instead of promoting dialogue and discussion such that students target only short-term success rather than the acquisition of lifelong knowledge (Shawky *et al*., 2001; Al-Faris *et al*., 2006; Al-Hazimi *et al*., 2004; Abdulrahman, 2008). Self-learning is not emphasised and research activities are limited (Al-Shehri, 2001; Sebai *et al*., 2001). One could speculate that this negative impact on learning habits might continue throughout their careers.

Health authorities

The huge investments made by the country in the health sector have actually been focused on the expansion and modernisation of health care facilities, and have resulted in equipping hospitals with the most advanced machines as reported in chapter (3). The government has invested more in expensive buildings than in

developing competitive professionals to operate these facilities. Achieving these aims is not the only step needed to guarantee competence. It must be understood that the participants showed more interest in keeping pace with the rest of the world than in establishing buildings. They needed software and the internet, which would allow instant global communication and virtually unlimited access to medical information. Furthermore, the government tended to pay for fixed projects, like establishing hospitals and health centres, but could not keep up with projects that needed long-term contracts, such as e-journal subscriptions and machine maintenance.

Saudi culture

Continuing medical education is of special significance because it supports directly the fundamental aim of the health care professions, which is to provide the best possible services to patients, and to the community (Peck *et al.*, 2000; Du Boulay, 2000; Fletcher, 2008; Brigley *et al.*, 2006; Fletcher, 2008). The findings however directed me to a major question: why this ignorance about enhancing learning in Saudi Arabia?

Al-Shehri *et al.* (2001) state that literature reviews of the CME has shown that the main challenges facing CME are in almost every country and Saudi Arabia is part of this world. It is true that the participants in this research may experience similar problems to professionals elsewhere when it comes to achieving educational development. However, from personal observation, I found out that Saudi people are heavily influenced by their distinctive culture, and the culture has contributed to these challenges. Speaking generally, to Saudi people learning implies a short period of education at the end of which they will obtain a high-level university degree. Any further training might not be pursued if it does not result in work promotion or an incremental salary adjustment.

Society does not encourage individuals to search, read, or pursue lifelong learning. Health care practices can also be described as being entrenched in tradition. Health workers are the product of the Saudi culture and they have demonstrated a disinclination to modify their attitude towards promotion and development. This finding supports the finding of Al-Rabeeah *et al*. (2009) as regard to social effects approval of projects and programmes in health care sector.

Some of the participants opined that this deficiency was because, generally speaking, Arab people do not like learning; for example:

> "Actually it is a shame to say this but the main problem with the Arab countries is that they are not reading, they are not writing" (Chief Med 1, site 1).

> "Despite the fact that the first word in the Quran says 'read', the Arabic phrase states 'we Arabs are a nation that does not read'; unfortunately, it is very true" (Med Const 3, site 2).

> "Libraries in the Middle East and in the ancient Islamic world were legendary. They used to be the centres of scientific learning. This is no longer the case; Arab societies lack interest in reading" (Libr 3, site 3).

10.5 Further study

The aim of this study was to identify the challenges confronting CME in the Kingdom's hospitals in the hope of promoting CME to meet future demands and achieve required training standards. The number of Saudi studies in this field is very limited and the overall quality of the evidence used was poor, methodologies were weak and information was unreliable and contradictory.

Benamer *et al*. (2009) state that some factors that are limiting the amount of research and the number of publications in Arab countries are lack of freedom and democracy. The paucity of studies conducted in Saudi Arabia might be the result of

the dearth of education and research among Saudis, as well as of social and political considerations.

The essential goal of the current study was to make a significant contribution to this under-researched topic. As noted above, reliable Saudi studies were almost non-existent. Consequently, future research directed at exploring, evaluating or improving CME is needed. For instance, the issue of the doctor-leader is controversial and ongoing, and is at the root of many arguments taking place at health conferences in the Kingdom. However, no evidence or scientific research has been published with regard to this issue. Furthermore, the acknowledgement of the heavy involvement of the pharmaceutical industry in continuing medical education, and the close physician-industry relationship, compounded by the absence of rules and guidelines, reflect the need for researchers to explore this dilemma.

There is a strong need for coherent research approaches to exploring challenges relating specifically to CME more closely and in turn, to provide proper and well tailored solutions to its problems. However, in order to make future studies of the Saudi health care system more objective, the nature of the society, the demographic setting, the political system and the economic factors that influence this system must all be taken into account.

10.6 Summary

In this chapter, I have presented a summary of the study. The objectives of the research were outlined and addressed as regard to the themes of the study; the dominance of unqualified physicians in health management, budgetary constraints, the poor status of medical library, and the lack of success of the current learning programme. Conclusions drawn from the thesis were discussed. Finally, some proposals were made concerning future studies needed in the field of CME in Saudi Arabia.

Appendices

Appendix 1-

Newcastle University

July 2008

School of
Medical Education Development

Newcastle University
The Medical School
Framlington Place
Newcastle upon Tyne
NE2 4HH United Kingdom

Professor G R Hammond
Head of School

To whom it may concern

Greetings

I am doing a PhD Degree in the field of Medical Education at Newcastle University, UK, under the supervision of Dr. Pauline Pearson and Prof. John Spencer. My thesis is " Learning Needs Assessment in Hospitals' Education " and this requires visiting concerned departments in a wide range of hospitals throughout the Kingdom to collect appropriate information and data which will be used later for this purpose.

The main objective of visiting your facility is to find out how medical education and training programs and their associated factors and elements have being planned, developed, conducted, managed and evaluated. I would appreciate it if you could give me the chance of visiting the relevant departments in your facility, in an effort to meet and talk to the people in charge during the month of Oct. 2008.

Best Regards

Awatif Alghamdi
PhD Student
Awatif.Alghamdi@ncl.ac.uk
Tel: 00447942311041

Revd Dr Pauline Pearson
Senior Lecturer in Primary Care Nursing & Deputy Head of School
Tel: 44191 222 6781

Professor John Spencer
Professor of Medical Education in Primary Health Care
Tel: 44191 222 5437

direct dial: +44 (0) 191 222 5020
switchboard: +44 (0) 191 222 6000
fax: +44 (0) 191 222 5016

e-mail: medev@ncl.ac.uk
www.ncl.ac.uk/medev

THE QUEEN'S ANNIVERSARY PRIZES
FOR HIGHER AND FURTHER EDUCATION
2005

Appendix 2-

Questions for the education representatives

1. What are your education and job title?
2. How long you have been doing that?
3. I understand that you are involved in education and training programmes, what is your role in that?
4. How do you feel about the role?
5. How do you feel about the learning programmes in your hospital?
6. How do you decide what learning needs for staff, what content?
7. Can you give me an example of this please (an example of how you arranged a previous education activity)?
8. Can you please tell me how you plan and design learning programme?
9. Can you give me an example please? (an example of how you designed a previous education activity)
10. What resources do you have available to plan and conduct programs? (For instance budget, staff, venue, library, internet, etc)
11. Have you ever had any difficulties in developing learning programme? If yes what?
12. What is the role of drugs companies in conducting learning programme?
13. What do you think of involving staff in determining what to learn?
14. Do you evaluate the result of your learning programme? If yes how? If not, why?
15. Do you think learning programmes influence professional development? If yes how? If not, why?
16. How do see your relationship with your manager, hospital administration and people in charge of training?
17. Do you hope for any change in the learning environment? If yes, what?

18. How do you see your career and working life developing over the next five years?
19. Would you like to add anything else regarding learning programmes and the hospital environment?

Appendix 3-

Continuing Medical Education in Saudi Arabia: The challenges

Please rank the problems listed below, No 1 would mean the most dominant problem to you among others in the same group

1. **Resources**

Problem	Rank from 1 to 5	Not a problem
Shortage of budget		
Library small space		
Old textbooks		
Limited PCs and internet access		
Temporary or lack of subscription to international e-journals		
Other problem? Identify please		

2. **Managers (people in charge of education activities)**

Problem	Rank from 1 to 3	Not a problem
Lack of knowledge and support		
Using their power over learning programme		
Developing learning programs for the sake of individual credit and reputation		
Other problem? Identify please		

3. Staff

Problem	Rank from 1 to 3	Not a problem
Lack of interest and certificate of attendance is the only motivation		
The persistence of staff in not changing performance after engaging in activities		
Staff diversity (different nationalities and different educational backgrounds)		
Other problem? Identify please		

Appendix 4-

Questions for the librarians

1. How long have you been working in the library?
2. When was the library established?
3. How do you find:
    a) The library building; space, location and environment
    b) Services; what are the services provided in the library and services you look forward to include?
    c) Staff; how many staff work in the library? And what are their qualifications?
4. How do you feel about the library status and services it provides?
5. What do customers feel about the library and its services?
6. How would you describe your relationship with colleagues in the education department, customers of the library, and hospital administration?
7. Are there any problems in the library? If yes, what are these problems?
8. If you have any concerns regarding the library, how do people in charge deal with it?
9. What are your expectations of the library after five years for example?
10. Do you have anything else to add regarding the library or learning environment in the hospital?

Appendix 5-

The participants' codes

Participant profession	Code
Chief of Medical Department	Chief Med
Chief of Paramedical Department	Chief Para Med
Director of Academic Affairs	Dir Acad affairs
Manager of Education and Training Department	Mang Edu
Director of Postgraduate Training Centre	Dir Pst Grad Tran
Director of Quality Management and Development	Dir Quality Mang
Consultant	Med Const
Librarian	Libr

Appendix 6-

Ethical approval

Appendix 7-

Sponsorship Agreement Document

Jan 2008

Under this agreement, Hospital XXX gives

_____ Company, the right

to sponsor the XXX Symposium 16-17 Jan 2008.

According to the following conditions & regulations:

The Golden Category Sponsor (50,000 SR):

- Recognized as the official sponsor, name printed in all conference publications, conference website and media plan.
- The right to arrange for or Sponsor tow international speakers.
- Invite 10 delegates, free registry in the conference program.
- Reserve two bedrooms in the hotel for sponsor guests.
- Exhibition Booth (3mX3m), Internet, telephone & board.
- Get available discounts to organize the conference in the aspects of hotel and services.
- Organizing a workshop related to the Conference.

The Silver Category Sponsor (30.000 SR):

- Recognized as the Silver sponsor, name printed in all conference publications, conference website and media plan.
- The right to arrange for or Sponsor one international speaker.
- Invite eight delegates, free registry in the conference program.
- Reserve one bedroom in the hotel for sponsor guests.

- Exhibition Booth (3mX3m) Internet, telephone & board
- Get available discounts to organize the conference in the aspects of hotel and services.

Sponsorship Agreement Document

The Bronze Category Sponsor (20.000SR):

- Recognized as the Bronze Sponsor, name printed in all conference publications, conference website and organization.
- Invite five delegates, free registry in the conference program.
- Reserve one bedroom in the hotel for sponsor guests.
- Exhibition Booth (2mX2m), landline & Internet.
- Get available discounts; organize the conference in the aspects of hotel and services.

Exhibitor (10:000Sr):

- Recognized as the Exhibitor, name printed in all conference publications, conference website and organization.

- Exhibition Booth (2mX2m), landline & Internet.
- Get available discounts to organize the conference in the aspects of hotel and services.

I agree, _____ the Managing Director of _____to contributes as a _____ Sponsor for the amount of _____, to XXX Hospital or deposit in account or to as symposium expenses.

Approval

Chairman **Sponsor**

Organizing Committee

Cc. Executive Director, Admin & financial affairs

Executive Director Academic Affairs

Director Public Relations & Media Affairs

Appendix 8-

Activity's Name 2nd Transplant Nursing Coordinator Symposium

Date April 4, 2008

TYPE OF ACTIVITY **International Conference/Symposium**

No. of Days (duration) **3**

No. of Attendees **300**

Category **D**

Activity Number **10**

Item الصنف	Quantity الكمية	No of Days عدد الأيام	Unit Price SR سعر الوحدة بالريال	Total Price المبلغ الإجمالي
Dining and Breaks				
Breakfast وجبات الإفطار	300	3	20	18000
Lunch وجبات الغداء	300	2	80	72000
Breaks (Snacks) وجبات خفيفة	600	2	15	18000
Speakers المتحدثين				
Speakers Tickets (business class) تذاكر المتحدثين (درجة الأعمال)				
a) Local محلي داخل المملكة)	6		2000	12000
b) International خارج المملكة) عالمي)	3		20000	60000
Speakers Gifts (Trophies) هدايا المتحدثين	12		250	3000
Honoraria مكافآت مالية للمتحدثين				
a) Local داخل المملكة (محلي)	8	1	1500	12000
b) International خارج المملكة (عالمي)	4	2	3000	24000
Accommodation (Speakers at the Sheraton Hotel) سكن المتحدثين	12	4	750	36000
Conference Promotion/Printed material مطبوعات				
Speakers Bags حقائب المتحدثين	15		120	1800
Printed Materials المطبوعات	1		15000	15000
Candidate's Bags حقائب للمشاركين	300		80	24000
Pens أقلام	300		5	1500
Flowers ورد لحفل الافتتاح	2		500	1000
ID Badge and Holder بطاقات هوية للمتحدثين مع حامل للبطاقة	300		4	1200
Stationary القرطاسية	2000			500

TOTAL	**301500**
***Amounts over the maximum budget is expected to be covered by other sponsors e.g. co-sponsor or medical industry**	

APPROVED BY:

Appendix 9-

CME PROPOPSAL: CEO DECISION

<Proposal Ref No>

<Title of the Event>

<COC name>

Dear Dr,

It is regretted that your proposal of a CME event could not get the required CEO approval.

The CME department will be always available for any future assistance that you may need.

With the best regards,

<CMEC name>
CME Department
Academic Affairs Administration
Ext: <CMEC Ext No>

Email ID: <CMEC Email ID> with cc to:

Note for using this format:

Text in <angled brackets and red colour> is just a placeholder. Replace it with proper information and change colour to black before emailing / printing.

Appendix 10-

الموقر سعادة المدير العام لشركة

السلام عليكم ورحمة الله وبركاته،،

وتحت رعاية معالي مؤتمراً دوليا تحت مسمى ( ) في الفترة من وحتى XXXبمناسبة تنظيم مستشفى
وذلك بمشاركة العديد من الجهات الطبية والأكاديمية الدولية ذات العلاقة ، حيث يشارك في هذا المؤتمر نخبة من الأطباء العالميين والمحللين لمشاركة آخر المستجدات لهذا الدور الإنساني الحيوي .

وبناء على ذلك يسرنا دعوتكم للمشاركة في رعاية فعاليات هذا المؤتمر من خلال احدى الفئات التي ترونها مناسبة في اتفاقية الرعاية المرفقة في هذا الخطاب.

وتقبلوا فائق التحية والتقدير ،،

المدير العام التنفيذي

مرفق : اتفاقية الرعاية الخاصة

صورة :-
رئيس اللجنة المنظمة
رئيس الشؤون الأكاديمية
العلاقات العامة

Appendix 11-

CME Feedback Form: Sponsor

Event Title: _____

Sponsor's name: _____

Representative's name: _____

Venue: _____ Date: _____

We highly appreciate your sponsorship of this CME activity. Kindly express your views by answering a few simple questions given below. Thank you for your cooperation, it will help us serve your interests better in future.

Please enter a tick mark in the square of your choice:

	1	2	3	4	5
A. Sponsorship Policies Of KFSHD:					
1. Terms and conditions of sponsorship: ……	☐	☐	☐	☐	☐
2. Time and efforts needed for sponsorship process:	☐	☐	☐	☐	☐
3. Facilities offered in return for sponsorship: ……	☐	☐	☐	☐	☐
B. Overall Opinion:					
4. Overall satisfaction level: ……..	☐	☐	☐	☐	☐

Any other suggestions / comments that you may have: _____

_____

_____

_____

_____

_____

_____

Appendix 12-

Librarian

Date written: 06 March 2004 **Date reviewed:** 10 September 2007

I. Position summary:

Under the Director of Academic Affairs Administration, has the responsibility to provide professional medical library service that meets the information and research related needs of the staff

II. Position relationships:

A. **Responsible to :** Director of Academic Affairs Administration

B. **Workers supervised :** Academic Affairs Administration porter

C. **Interrelationships :** Academic Affairs Administration staff, and hospital staff

III. Major duties:

1. The medical librarian shall continually review journals, books and pamphlets.
2. Organize the library books using the index system.
3. Assist the researchers to look for the needed books and references whenever necessary.
4. Manage book lending process
5. Manage the library internet services.
6. Provide different library services like photocopying, laminating, ……. for hospital staff
7. Assess the need for additional books, references and journals.
8. Keep an accurate/updated record and inventory of books and journals.
9. Ensure suitable atmosphere for reading at all times inside the library.
10. Act as webmaster for department web site receiving & uploading updated data
11. Other duties assigned to him/her from Director of Education.

IV. Qualifications:

A. Education : Bachelor degree in Libraries and Information

B. Experience : Minimum of two years experience in the same field

V. Other skills:

A. Excellent in computer skills

B. Fluent in written and spoken English and can manage Arabic language

VI. Physical requirements:

Excellent physical and mental health

Appendix 13-

JOB DESCRIPTION

MEDICAL LIBRARIAN

<table>
<tr><td colspan="2">DATE: 29 JUN 2009</td><td colspan="2">CODE NUMBER: JD 447-02</td><td>GRADE:</td></tr>
<tr><td colspan="2">DEPARTMENT: ACADEMIC AFFAIRS ADMINISTRATION</td><td colspan="3">JOB TITLE: MEDICAL LIBRARIAN</td></tr>
<tr><td colspan="2">REPORTS TO: SENIOR MEDICAL LIBRARIAN</td><td colspan="3">RESPONSIBLE FOR:</td></tr>
<tr><td colspan="5">BASIC PURPOSE OF THE JOB:</td></tr>
<tr><td colspan="5">▪ Manages System-wide support functional area of Reader service, Information services and Technical services within the library.</td></tr>
<tr><td colspan="5">JOB REQUIREMENTS:</td></tr>
<tr><td rowspan="2">EDUCATION:</td><td colspan="4">ESSENTIAL:
▪ Bachelors Degree in Library and Information Science</td></tr>
<tr><td colspan="4">DESIRABLE:
▪ Bachelors of Science Degree in Education Major in Library Science</td></tr>
<tr><td rowspan="2">WORK EXPERIENCE:</td><td colspan="4">ESSENTIAL:
▪ 3 years experience in Health Sciences Library</td></tr>
<tr><td colspan="4">DESIRABLE:
▪ 5 years experience as Medical Librarian in hospital based and or university</td></tr>
<tr><td colspan="5">MENTAL AND EMOTIONAL REQUIREMENTS: Indicate the mental and emotional activities required of this job in the course of a normal shift (check all that apply).</td></tr>
<tr><td colspan="2">☑ Handles multiple priorities</td><td colspan="3">☑ Managers stress appropriately</td></tr>
<tr><td colspan="2">☐ Independent discretion / decision making</td><td colspan="3">☑ Works alone effectively</td></tr>
<tr><td colspan="2">☐ Makes decision under pressure</td><td colspan="3">Works in close proximity to others and / or in a distracting environment</td></tr>
<tr><td colspan="2">☑ Manages anger / fear / hostility</td><td colspan="3">☑ Works with others effectively</td></tr>
<tr><td colspan="5">ESSENTIAL FUNCTIONS:</td></tr>
<tr><td colspan="5">▪ Classifies the catalogue books according to National Library of Medicine classification.</td></tr>
<tr><td colspan="5">▪ Prepare references lists, bibliographies of the newly acquired books.</td></tr>
<tr><td colspan="5">▪ Provides searches service in support of the research activities of the staff.</td></tr>
</table>

▪ Ensures that library collection and maintain the physical arrangement for easy location and retrieval.
▪ Index the Journal articles.
▪ Ensures that current information needs of hospital/medical staff are met through availability of journals, volumes, reprints, etc.
▪ Logs all journals received in the library weekly.
▪ Conducts on-line and manual searches for the medical staff and other hospital personnel.
▪ Ensures computer programs are operational and up to date.
▪ Participates in hospital wide activities.
▪ Participates in emergency and disaster procedures.
▪ Performs other duties within the realm of his/her knowledge and ability as required.
LEADERSHIP COMPETENCIES (According to job title and level of responsibility)
▪ Not applicable.

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