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An overview of Faculty Development Program in the Medical Education Department, Faculty of Medicine, King Abdul Aziz University

Lana Al Shawwa[1], Mohammed Al-Rabia[2], Nasra Ayuob[1, 3], Hussein Algahtani[4]

[1] Department of Medical Education, [2]Department of Microbiology and Medical Parasitology, Faculty of Medicine, King Abdulaziz University, Jeddah, Saudi Arabia [3]Faculty of Medicine, Mansoura University, Egypt.[4]King Saud Bin Abdulaziz University for Health Sciences, Jeddah, Saudi Arabia

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ABSTRACT

Introduction: This work aimed to analyze and document the faculty development program (FDP) held in the medical education department (MED), Faculty of Medicine (FOM) in the last 6 years in order to help understanding about the current situation the challenges facing the FDP at the FOM. **Method:** A retrospective, data-base study was conducted in the MED, FOM, at King Abdul Aziz University, Jeddah Saudi Arabia, during the academic year of 2014-2015. The data was analyzed using MedCalc Software and significance was considered at $p<0.05$. The data was also supported by a focus group. **Result:** The number of workshops on students' assessment was highest in the first three years. Female faculty participation in the FDP was generally higher than that of the male faculty members except in the last academic year 2013-2014. In the first four days, there was a gap in participation levels in the FDP between the basic and clinical faculty and in the last two years this gap in participation became smaller. The maximum participation level in the FDP among the clinical departments through the last 6 years was of the surgery department. Seeking for international academic accreditation and the curriculum reform were two major events that affected the participation in the FDP during the last 6 years. **Conclusion:** Participation of faculty in the FDP seems to evolve according to the faculty needs as well as the major events occur in the institute or the curriculum. This represent a big challenge for the MED and mandate a continuous assessment of the training needs and a well design training program as well as a strong administrative support.

CORRESPONDING AUTHOR: Dr Nasra Naeim Ayuob, Faculty of Medicine, King Abdulaziz University, Jeddah, Saudi Arabia. Email: nasraayuob@gmail.com

Introduction

The words "teach" and "doctor" came from the same origin; the Latin verb "docere". So, it seems that the teaching is an important role of a doctor. Traditionally, anyone who graduated from medical school was considered capable of teaching. It became apparent, however, that teaching was not an innate gift. Beside content, teaching also involves 'process', and requires the development of the 'art' of teaching. To develop such skills academics require support (1). It has been stated that the majority of academic faculty are not formally trained on teaching as one of their primary responsibilities (2). In addition, Harden and Crosby, 2000 (3) stated that medical school faculty is assuming multiple teaching roles including teacher, administrator, lecturer,

small-group facilitator, assessor and being a role model.

In the modern curriculum, teaching duties of medical teachers have gone farther than the classroom. It includes teaching small groups, assessment, providing instructional materials beyond the syllabus, problem-based learning, and facilitating student-centered learning. As a result Faculty development is essential to train and assist medical faculty in all areas that revolves around essential educational theories, specific teaching skills as well as encouragement of adopting a flexible and learner-centered approach to teaching (4).

There is now a universal agreement that medical teachers should be formally trained on educational methods. They should possess a fundamental understanding of curriculum planning and evaluation including how to set educational objectives and prepare and execute an educational plan (5). Recognition of the obligation to teach others, particularly doctors in training, is one of the attributed deemed important skills by the British General Medical Council in any medical practitioner (6). Faculty development has been defined as all activities that institutions use to assist faculty in their roles Centra, 1978 (7) and includes initiatives designed to improve the performance of faculty members in teaching, research and administration (8). In many ways, faculty development is a planned program to prepare institutions and faculty members for their academic roles, including teaching, research, administration, writing and career management. Faculty development (FD) is also meant to improve practice and manage change, by enhancing individual strengths and abilities as well as organizational capacities and culture (9).

FDP indicates the inner faith that institutions have in their workforce. Successful faculty development is expected to result in improved teaching performance which in turn leads to better learning outcomes for students or doctors (10). The goal of a faculty development program is to provide all faculty with developmental resources for meaningful and productive careers (11, 12). Traditional FDP focuses on improving teaching skills, fostering research, and facilitating professional advancement (12). Such traditional FDP are often centered at university-based academic medical centers where a substantial proportion of the faculty is university-employed (13).

The principles of adult education have greatly influenced the approach used by many FDP. Incorporation of these educational principles into the design of FDP has enhanced their reception by faculty members and has increased their value to the institution. In many ways, these principles, best articulated by Knowles, 1980 (14) should continue to guide the development and implementation of all FDP, irrespective of their focus or format. Although it is important that theory informs practice, faculty development activities and programs must remain relevant and practical. The teaching of concepts and skills in this area must also remain clear and simple. Although the domains for faculty development are complex, faculty members want simple messages, concepts, and directions. Therefore, complexity should be avoided and practicality should be promoted. The acknowledgement of the participants' culture and context must also be ensured, and their experience should be used as a foundation for learning and development (15).

Common implementation problems include a lack of institutional support, limited resources, and limited faculty time. Faculty developers must work to overcome these problems through creative programming, skilled marketing, targeted fundraising, and the delivery of high quality programs. Flexible scheduling and collaborative programming, which address clearly identified needs, will also help to ensure success at a systems level (16).

In 1999 King Abdul Aziz University (KAU) Faculty of Medicine (FOM) undertook a major reform of its 6-year undergraduate program curriculum. It established a task force to work on developing a strategic plan to implement a new undergraduate integrated system based curriculum that emphasizes active and self-directed learning. In 2007 KAU FOM reoriented the medical curriculum from a teacher-centered model of teaching to a student-centered model of learning. Didactic lectures and structured

classroom time were decreased. In response to these great educational developments the medical education department (MED) was established in 2007**.** Harden descried medical education departments as service providers. He went further and explained that this involved: helping faculty members in other departments within the institution with aspects of teaching and learning; advising on the development of the curriculum in accordance with best evidence medical education; providing expertise in student assessment and curriculum evaluation; and offering support in the development of instructional materials and student study guides, online learning materials and other resource materials. In KAU service responsibility as previously mentioned was the first role assumed by the department and might be the main rationale for its establishment**.** In KAU a great number of the academic faculty joining FOM are not really trained to teach. Hence, the MED has a great responsibility to introduce its faculty members to the principles of teaching and learning. Efforts that aim to aid the professional and intellectual needed growth of faculty members is considered as efforts that lead to faculty development.

Evaluation of faculty development is more than an academic exercise. Research must inform practice, and findings must be used in the design, delivery and marketing of FDP. Faculty development must strive to promote education as a scholarly activity. Faculty development represents an investment in human capital. Educational institutions receive a return on this investment in the form of an improved institution overtime. Disciplines also receive a return through improved research and better training for the next generation of the profession provided by graduates of FDP. The return to individual faculty members comes in the form of improved vitality and growth that can help sustain them in their academic careers. Faculty development has high payoff potential; thus it is important to design and implement effective programs (23).
This work aims to analyze and document the MED faculty development program in the time period between the academic years of 2008-2013. It will help enrich our understanding about the current situation at MED-FOM and the challenges facing it. It will also help suggest evidence based practices that will positively improve the quality of the future FDP provided by the department.

Method

A retrospective, data-base study was conducted in the Medical education Department, Faculty of Medicine, at King Abdul Aziz University, Jeddah Saudi Arabia. During the academic year of 2014-2015, the data was retrieved and compiled from the medical education faculty development records. The study subjects were all faculty members from both basic and clinical departments that attended faculty development programs at the medical education department from the period of 2008-2014. The data was analyzed by one of the investigators using MedCalc Soft ware © 1993-2015, version 14.12.0, last modified: December 3, 2014. Significance was considered at $p<0.05$.

The data was also supported by a focus group. The focus group was an extensive meeting with the vice dean of clinical affairs, the chairman of the surgery department, the chairman of the OBG department, a representative of the Medicine department, a representative of the Pediatric department. This meeting was intended to obtain an in depth study of decision makers' experiences and thoughts.

Result

Regarding the number and themes of workshops given though the MED the number of workshops on students' assessment was highest in the first three years (Figure 1)**.**

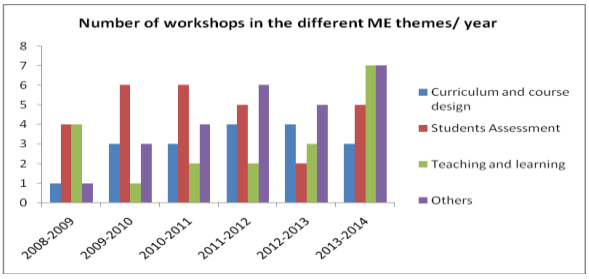

Figure 1: Number of workshops conducted in the MED per year in each of the MED themes.

Looking at the gender variable this study showed that the female faculty participation level in the FDP was about as twice as that of the male faculty members except in the last academic year 2013-2014 where non-significant difference (P=0.06) existed between male and female participation (Table1).

Table 1: Gender of the participants in FDP workshops conducted in the MED during the last 6 years (2008-2014).

Academic Year	Male attendants, n (%)	Female attendants, n (%)	Total	*P value
2008-2009	33 (34.7)	62 (65.3)	95	0.008
2009-2010	146 (38.4)	234 (61.6)	380	<0.001
2010-2011	103 (36.8)	177 (63.2)	280	<0.001
2011-2012	144 (35.6)	260 (64.4)	404	<0.001
2012-2013	91 (27.6)	239 (72.4)	330	<0.001
2013-2014	80 (42.6)	108 (57.4)	188	0.06

***S**ignificance is considered at p<0.05

When it came to the participation level of both the basic science and clinical departments, it was observed that the clinical faculty participation was significantly higher (about twice that of the basic science department) in the academic years 2008-2009 and 2009-2010 (P=0.003, p<0.001 respectively) and the ration was inversed in 2010-2011 and 2011-2012 where the participation of the basic science faculty became significantly higher (p<0.001, p<0.001). In the last two years the gap in participation between the basic and clinical became smaller and there were non-significant difference between both (Table 2).

Table 2: Departments of the participants in FDP workshops conducted in the MED during the last 6 years (2008-2014)

Academic Year	Attendants from basic science department, n (%)	Attendants from clinical departments, n (%)	Total	*P value
2008-2009	31 (32.6)	64 (67.3)	95	0.003
2009-2010	135 (35.5)	245 (64.5)	380	<0.001
2010-2011	178 (63.6)	102 (36.4)	280	<0.001
2011-2012	308 (76.2)	96 (23.8)	404	<0.001
2012-2013	132 (40)	98 (29.7)	330	0.14
2013-2014	103 (54.8)	85 (45.2)	188	0.24

***S**ignificance is considered at p<0.05

Collectively, the maximum participation level in the FDP among the clinical departments through the last 6 years was of the surgery department followed by the family and community, internal medicine, obstetric and gynecology then the pediatric department and the radiology department which come last. The maximum participation level of the internal medicine in the FDP was in the academic year 2010-2011 while that of the surgery and obstetric and gynecology departments was in 2008-2009. The maximum participation level of the pediatric department was in 2013-2014 while that of the family and community medicine and radiology departments was in the academic year 2012-2013 (Figure 2A).

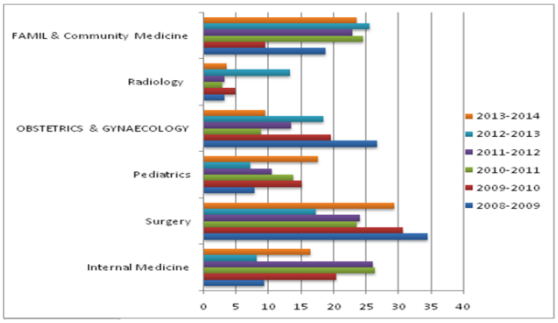

Figure 2A: Percentage of participation of different clinical department in the FDP during the last 6 years (2008-2014).

It was also observed that the surgery department had the maximum participation level in the FDP in the academic years 2008-2009, 2009-2010, 2013-2014 while the internal medicine department had the maximum participation level

in 2010-2011 and 2011-2012. The community and family medicine got the maximum participation in 2012-2013 (Figure 2B).

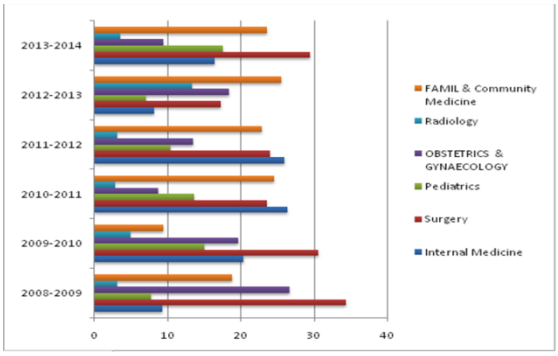

Figure 2B: Percentage of participation of different clinical department in the FDP during the last 6 years (2008-2014).

Discussion

When MED planned its faculty developmental program certain principles were considered. Understanding the Institution's Context/Culture was the first principle that MED used to build its initiatives. According to Rubeck and Witzke, 1998 it is important to match the institution's culture and be responsive to its needs. MED tried to capitalize on the organization's strengths and work with the leadership to ensure success. In 2007 FOM has adopted a new curriculum and this required preparing its faculty to serve its objectives thus the MED had to focus on FDP. Continuing professional development and continuing medical education were the essence of this early phase. Faculty training was targeted through organizing workshops, short courses, conferences in medical education and offering courses that are accredited for continuing medical education (24). In addition the MED considered the recommendation stated by Steinert, 2000 and based its FDP on the needs of faculty members as well as the institution. Student needs, patient needs, and societal needs, as well as organizational demands and challenges, were all considered in the design of all programs. Faculty development should aim to renew and assist faculty in their diverse roles and to help meet the needs of the organization in which they work in. For example in 2009 FOM started to prepare for the Liaison Committee on Medical Education (LCME) accreditation process. This task necessitated the development of the Accreditation Technical Support Unit (ATS) that was linked and served the Main Task Force Committee for Academic Accreditation. Through ATS and its members the MED aimed to communicate with other departments and curriculum committees aiding in the accreditation preparation process (24).

In this study it was found that in the academic years of 2008-2009 the number of clinical faculty attending FDP at the MED was twice than the number of the faculty coming from the basic departments. This could also be linked to institution needs. During 2008-2009 the administration adopted the new student centered curriculum thus there was a great need to prepare the faculty to their different and new roles of a facilitator of learning. This year was also the year the problem based learning (PBL) was introduced to the faculty of Medicine. This nesseciated that all faculty members prepared to participate in the PBL sessions. During this year PBL workshops were offered twice a month and administration requested that all faculty members to be trained. When looking at the high participation level of the surgery department during 2008-2009 one might relate this to the introduction of the Objective Structured Clinical Examination (OSCE). During this year FOM adopted OSCE as a mean of clinical examination which also required the preparation of faculty members. The need for diverse approaches to faculty development has been highlighted by many authors. Designed programs must be sensitive to the needs of different faculty members. Looking at that, one will notice that most of the FDP activities conducted at the MED revolved around providing workshops where faculty members experiences hands on approach. This is partly in alignment with McLean *et al.*, 2008 (20) recommendation. The later also stated that adult preferences for learning vary significantly thus MED should try to offer a variety of methods and content areas, tailored to individual and organizational needs. There is a great need for establishing a continuous feedback process where departments communicate with the MED to explore their needs and areas that need to be improved. MED should be sensitive to

need variation between department and this should be reflected in their FDP.

When planning its FDP the MED recognized what Caroll, 1993 (25) suggested and was sensitive to the fact that its physicians demonstrate a high degree of self-direction and that they possess many experiences that should be used as a learning resource. Most of the workshops given in MED revolved on the faculty own experience with an emphasis on experiential learning and immediacy of application.

When planning their programs one can notice that MED intentionally planned short activities (e.g. workshops) that involves faculty colleagues learning with and from each other. This was evident when looking at the activity logs that contained diverse faculty members. Stritter, 1983 (26) states that activities can increase knowledge, motivate interest in change, and raise levels of awareness; lasting change, however, is unlikely unless skill practice, accompanied by specific feedback, continues after the program's conclusion. This area that is strongly needed and will aid in providing lasting change is the offering of more extensive approaches (e.g. fellowships, degree programs) which in turn will have the greatest potential for impact on faculty. In order to maximize benefits from their FDP there should be an intentionally planned assessment approach. MED should provide its faculty with feedback about the effects of their teaching from self student and colleagues' evaluation. This step is not standardized in the MED. The latter should consider evidence based recommendations given to participants. MED should follow on the participants and measure its effectiveness of its programs.

To be most effective, Hitchcock *et al.*, 1993 (23) recommends that self-assessment should be based on specific criteria and used in concert with assessment from some other source (e.g. educational specialists, peers, administrators). Peer assessment, in which participants evaluate each other and then discuss conclusions with one another, can be helpful in improving teaching, but must be non-threatening, based on agreed-upon specific evaluative criteria, and facilitated by an effective leader. Feedback from learners can also be helpful when integrated with a structured program of improvement (e.g. consultation by educational specialist). An important area that requires development at MED is the technical aspect of the FDP. Technical assistance involves a specialist in educational process, technology, or research working with an individual instructor in a consultative or collaborative manner to study or improve some aspect of instruction. Consultation has extremely individualistic outcomes; to have maximum results, it should be flexible, long-term, individualized, based on a contract, and take the organizational context into consideration. Collaborative educational research in which the instructor and the educator interact as colleagues studying an educational problem can change the behavior of the instructor significantly but is time-consuming for all (23). According to McLean *et al.*, 2008 (20) the task of training adaptable, quality health care providers who are life-long learners requires a cadre of informed, competent, dedicated and professional clinical teachers, educators, researchers and administrators. A considerable responsibility therefore rests with MED to provide appropriate training and support for anyone who teaches or supervises its learners though not only relying on MED faculty members but also outsourcing faculty members that are highly capable of designing and delivering FDP. Looking at the participation level and the factors that drives faculty to attend one must realize that there are many factors that affect participation level. Faculty development represents an investment in human capital. Educational institutions receive a return on this investment in the form of an improved institution over time. Disciplines also receive a return through improved research and better training for the next generation of the profession provided by graduates of FDP. The return to individual faculty members comes in the form of improved vitality and growth that can help sustain them in their academic careers. Faculty development has high payoff potential; thus it is important to design and implement effective programs (23). It makes sense for an institution to invest in the development of its faculty members, who some

regard as the institution's most valuable asset. Ideally, this investment should begin at the time of appointment (27).

Teachers' attitudes and misconceptions about their teaching reduce the likelihood of participation in faculty development. To this end, they may underestimate their teaching ability, may not perceive the benefits of training or may fail to recognize any link between teaching and clinical skills or between teacher training and teaching excellence. A faculty evaluation program involving students and peers is recommended as a good starting point for faculty development. Poor student reviews, which will negatively impact on any promotion application, may prompt individual faculty members to participate. Ultimately, however, the institutional culture should encourage self-evaluation and reflection on practice (28). MED deals with faculty participation as an opportunistic approach. Although the MED offered during the last three academic years three workshops that were mainly offered to the new appointed faculty but this is clearly not structured and number of times it was offered was not satisfactory and in related to the number of new appointed faculty members. Those workshops also rely on the faculty members own interest and lack of a structured plan that deals with orientating new faculty into their roles and responsibilities. Another important factor MED should address are the incentives given to faculty members who attend FDP. Stress and burnout amongst medical teachers is common (29). Increasing student numbers, managed health care, administrative and research responsibilities all need to be factored. To promote academic vitality, appropriate FDP linked toward incentives would assist in higher retention among teachers, clinicians, researchers and administrators (30). At institutions where research remains the 'gold standard for appointment and promotion, participation in faculty development may require negotiation. A similar situation could arise if faculty development is perceived as a political 'top-down' approach, with little or no personal or professional reward (31). Till the time this research was conducted there are few incentives given to faculty members who attend the FDP at MED. One of the greatest and valuable incentives is the recognition of the faculty participation and training by the Center of Teaching and Learning Development (CTLD). This is a great incentive since two certificates issued by the center is one of the requirement for faculty promotion. A study that explores the faculty participation level is needed to explore the effect of this agreement on faculty participation levels.

Fortunately, with accreditation bodies advocating more student-centered curricula and requiring 'professionalization' of teaching, faculty development should become an integral institutional activity. Inspirational and supportive leadership is, however, critical. If faculty members are viewed as valuable assets and rewarded for their educational contributions, faculty development then becomes an institutional investment, and, 'by enabling faculty members to meet individual goals as teachers, scholars and leaders, the broader goals and missions of the educational institutions are also met' (32). Meaningful or long-term outcomes of faculty development have generally not been measured or documented, despite several decades of research on and reported success of FDP. This may be explained in part by the difficulty in measuring many of the desired outcomes. While participant satisfaction can be elicited relatively easily as it is self-reported, it is considerably more difficult to measure improved student learning or enhanced patient care (33). Despite a wealth of literature describing FDP in health sciences and higher education, few studies document meaningful outcomes such as sustained changes in teaching practice. Evidence supporting the assumption that faculty development does impact on student learning is, however, accumulating (34).

Conclusion

Participation of faculty in the FDP seems to evolve according to the faculty needs as well as the major events occur in the institute or the curriculum. This represent a big challenge for the MED and mandate a continuous assessment of the training needs and a well design training

program as well as a strong administrative support.

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