



Research Article

Barriers to Faculty Development Program for Medical Education: Experience from Saudi Arabia

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ABSTRACT

Background: Many factors may impede faculty development programs. These barriers can be categorized according to the source of their possible origin: faculty level and institutional level. It is of paramount importance to know these barriers to determine the appropriate ways to solve them so as to make implementing faculty development programs possible. This study aims to identify the barriers to faculty development program in medical education in Saudi Arabia.

Methods: This cross-sectional survey was conducted in the Western region of Saudi Arabia. The participants, who hailed from multiple universities, were asked to fill out a pre-designed self-administered questionnaire. The survey questionnaire, which was generated from the literature, consists of 54 items.

Results: The most important institution-related barrier for a faculty development program was the inadequacy of managerial and organizational support. The most important personal barrier for faculty development program was resistance to change. The most important curriculum-related barrier for a faculty development program was lack of follow-up activities. The most important student and research-related barrier for faculty development program was underprepared students.

Conclusion: Our study demonstrated that faculty development in Saudi Arabia is in its infancy with several barriers impeding its implementation and success. This study validated these predetermined barriers in the Saudi context. There is a need to overcome all barriers on both faculty and institutional levels in order to establish an outstanding faculty development program. Institutions have to realize the importance of a faculty development program as two-thirds of the barriers were related to institutions.

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1. INTRODUCTION

Faculty development program is defined as “any planned activity to improve an individual’s knowledge and skills in areas considered essential to the performance of a faculty member for their roles like a teacher, researcher, and administrator in order to address their needs for future development” [1]. Over the past few decades, it was noticed that medical teachers were not trained as educational teachers and administrators although many of them were superb in their disciplines. With formal training, medical teachers are more effective, creative, and successful. Faculty development is imperative for every medical school requiring a medical education unit with faculty developers and academic role models [2].

Medical education has come a long way since its inception with rapid changes and development. There is a crucial need for faculty development programs in Saudi Arabia owing to the tremendous

increase in the number of medical students and colleges, fast-paced innovations in medical education, and continuous changes in learning methods [2–6]. There are many factors that could possibly affect the performance of faculty members. These include lack of formal training in academic roles, different practices in regard to teaching methodologies, multiple professional job roles, and heavy workloads. Faculty development programs need to address these problems and overcome multiple barriers [7–11].

Many factors may impede faculty development programs. These barriers can be categorized according to the source of their possible origin: faculty level and institutional level. It is of paramount importance to analyze these barriers to determine the appropriate ways to overcome them so as to make implementing faculty development programs possible [12]. This study aims to identify the barriers to faculty development programs in medical education in Saudi Arabia.

2. MATERIALS AND METHODS

Our study is a cross-sectional survey that focused on participants belonging to six universities in a Western province of Saudi Arabia.

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Data availability statement: The data that support the findings of this study are available from the corresponding author, [HA], upon reasonable request.

Data collection took 1 year starting from August 2016. Participants were faculty members who worked for the past 2 years as full-time or joint appointees, teaching with or without clinical teaching assignments, and attended or participated in any faculty development programs. The exclusion criteria included newly employed faculty members, part-timers, and those under the nonteaching category position. The method used in the selection of respondents was the consecutive sampling technique (all of the faculty members who met eligibility criteria were invited to participate), which was based on the eligibility criteria.

The questionnaire used in this study and filled out by the participants was a predesigned self-administered tool generated from the literature [1,7–10,13]. A comprehensive questionnaire was created including all possible items (barriers) from related publications in the literature. These barriers were grouped into four groups: institution-related, personal, curriculum-related, and student and research-related. The survey questionnaire consisted of 54 items designed to assess the barriers to the faculty development program. The questionnaire used a 5-point Likert scale with five scaled options per item (1 = not at all, 2 = not much, 3 = somewhat, 4 = strong, 5 = very strong). In addition, a demographic profile of the participants was collected to identify their background and work experience factors that might influence their perceptions of the faculty development program.

The content validity of the questionnaire was verified by consulting a panel of experts in the faculty development program for review and opinion. Modifications suggested by the panel were made, and a subsequent pilot testing was conducted for calculation of Chronbach α for internal consistency, which demonstrated high reliability. Moreover, the questionnaires' scales and subscales consistency were determined by performing factor analysis. The Institutional Review Board of King Abdullah International Medical Research Center approved this study.

3. RESULTS

A total of 400 questionnaires were distributed, and 210 faculty members participated in the study (52.5% response rate). Most of the participants were affiliated to King Saud bin Abdulaziz University for Health Sciences representing 56.7% (119) participants, were employed full-time (81.4% of the participants), and were older than 40 years [80.5% (169) participants]. The full-time faculty members were from the science divisions, whereas the joint appointees were from the clinical divisions. Most of the participants were males [75.2% (158) participants], and the PhD holders were the majority [67.1% (141) participants]. The majority of participants were mainly employed as assistant professors (54.3%). More than 50% of the participants had experience between 3 and 10 years (Table 1).

A total of 54 barriers were identified. The most important institution-related barrier for a faculty development program was the inadequacy of managerial and organizational support, and the least important barrier was increasing multiculturalism and diversity. Facility and technology-related problems were at the bottom of the barriers perceived by the respondents (Table 2). The most important personal barrier for a faculty development program was resistance to change, and the least important barrier was expanding the definition of scholarship (Table 3). The most important curriculum-related

Table 1 | Demographic profile of the participants

Item	Frequency	Percentage (%)
Name of university		
KSAU-HS	119	56.7
BC	29	13.8
TU	22	10.5
ISNCMS	18	8.6
UQU	15	7.1
RU	7	3.3
Employment status		
Full time	171	81.4
Joint appointees	39	18.6
Age range (years)		
25–30	4	1.9
31–35	9	4.3
36–40	26	12.4
41–45	64	30.5
46–50	51	24.3
≥51	54	25.7
Unclassified	2	1
Sex		
Male	158	75.2
Female	50	23.8
Unclassified	2	1
Educational attainment		
Bachelor	19	9
Masters	44	21
PhD	141	67.1
Unclassified	6	2.9
Academic position		
Teaching assistant	7	3.3
Lecturer	18	8.6
Assistant professor	114	54.3
Associate professor	39	18.6
Professor	32	15.2
Length of teaching experience (years)		
≤2	33	15.7
3–5	61	29.1
6–10	49	23.3
11–15	22	10.5
16–20	20	9.5
21–25	21	10
Unclassified	4	1.9

BC, Batterjee College; ISNCMS, Ibn Sina National College for Medical Studies; KSAU-HS, King Saud bin Abdulaziz University for Health Sciences; RU, Rabigh University; TU, Taif University; UQU, Umm AlQura University.

barrier for a faculty development program was lack of follow-up activities, and the least important barrier was that implemented programs did not achieve the intended objectives (Table 4). The most important student and research-related barrier for a faculty development program was underprepared students (lacking basic skills in at least one of the three fundamental areas of reading, writing, or mathematics), and the least important barrier was faculty perceptions of a research culture rather than the emphasis on teaching (Table 5).

4. DISCUSSION

Barriers to a faculty development program are better categorized according to the source of its possible origin: institution-related, personal, curriculum-related, student and research-related [14].

Table 2 | Institution-related barriers in the faculty development program

Rank	Barriers	Mean	SD
1	Inadequacy of managerial/organizational support	4.16	0.99
2	Inadequacy of support from the department and school	4.14	0.93
3	Instability of management in the decision making process	4.04	0.98
4	Budget constraints	3.94	0.97
5	Insufficient qualified academic staff members to conduct the faculty development program	3.94	1.03
6	Lack of adequate staff support	3.91	0.99
7	Lack of direction from and connection to the department	3.85	0.99
8	Faculty unequal opportunities for improvement	3.85	1.03
9	General lack of administrative support	3.80	1.09
10	Less attention to faculty professional community services	3.73	0.89
11	Underutilization of diverse source of information	3.66	0.98
12	Lack of clear expectation on the part of chairs and divisional directors	3.65	1.05
13	General lack of faculty support and interest	3.65	1.13
14	Unsupported leadership	3.64	1.09
15	Less attention to faculty administrative roles	3.61	0.96
16	Lack of integration of technology into traditional learning and teaching	3.60	1.14
17	Facility problem (e.g., poor location/insufficient space)	3.44	1.18
18	Increasing multiculturalism and diversity	3.41	1.06

SD, standard deviation.

In our study, more than 40% of the barriers were personal, and one-third of the barriers were related to institutional reasons. The top three personal barriers were resistance to change, the volume of work and lack of time, and inadequacy of faculty partnership in decision-making. The least important three personal barriers were lack of mentoring, belief that teachers' training is unrelated to teaching excellence, and expanding the definition of scholarship. On the institutional level, the top three barriers were the inadequacy of managerial and organizational support, the inadequacy of support from the department and school, and the instability of management of the decision-making process. The three least barriers were lack of integration of technology into traditional learning and teaching, facility problem, and increasing multiculturalism and diversity.

In our research, a major barrier for a faculty development program was balancing and finding time for multiple work responsibilities. Faculty finds it a daunting challenge to simultaneously achieve distinction as a scholar, educator, and researcher. Participants find the volume of work, clinical tasks, and difficulty in leaving the clinical setting a major barrier toward participation in faculty development programs. This was also found in several studies reported in the literature, along with lack of personal and professional time, lack of protected time, and difficulties associated with committing to a half-day or a full day for professional development [9,10]. Although

Table 3 | Personal barriers in the faculty development program

Rank	Barriers	Mean	SD
1	Resistance to change	4.13	0.92
2	Volume of work and lack of time	4.02	1.05
3	Lack of time to devote to development activities	3.99	1.08
4	Inadequacy of faculty partnership in decision making	3.98	0.88
5	Subsequent pressure of work	3.98	1.06
6	Lack of reward for teaching	3.98	0.91
7	Lack of recognition	3.94	0.99
8	Lack of faculty motivation	3.93	0.99
9	Unwillingness of faculty members to acknowledge deficiencies in their teaching ability, knowledge, and skills	3.93	1.06
10	Faculty unequal reward for participation	3.90	1.04
11	Pressure of clinical work	3.85	1.11
12	Faculty underestimate the need for faculty development or potential benefits from participation	3.79	0.97
13	Insufficient time	3.78	0.96
14	Little or no professional reward	3.77	0.92
15	Teachers attitudes and misconceptions about their teaching	3.74	0.96
16	Lack of faculty partnership	3.74	0.86
17	Less attention to faculty personal development	3.73	0.92
18	Perceive little need to participate	3.73	0.99
19	Lack of value for medical education at faculty level	3.67	1.13
20	Spend time where they derive most personal benefits	3.58	0.88
21	Lack of mentoring	3.54	1.06
22	Belief that teachers training is unrelated to teaching excellence	3.52	1.21
23	Expanding definition of scholarship	3.40	1.01

SD, standard deviation.

Table 4 | Curriculum-related barriers in the faculty development program

Rank	Barriers	Mean	SD
1	Lack of follow-up activities	4.07	0.93
2	Fragmented and parallel structures dealing with faculty development activities	3.92	0.91
3	Lack of standards in faculty training (i.e., formal definition and compilation of minimum requirements for the professional skills of faculty)	3.96	1.05
4	Lack of systemic approach to the faculty training process	3.86	0.91
5	Performing needs assessment is not properly done	3.82	0.94
6	Insufficient training	3.80	1.01
7	No involvement of the faculty in the planning of the faculty development program	3.76	1.05
8	Implemented programs did not achieve the intended objectives	3.75	0.96

SD, standard deviation.

mission statements of most medical faculties generally advertise teaching as a priority, it is often clinical duties that triumphs. If senior faculty administrators support faculty development and

Table 5 | Student and research-related barriers in the faculty development program

Rank	Barriers	Mean	SD
1	Underprepared students (lacking basic skills in at least one of the three fundamental areas of reading, writing, or mathematics)	3.83	2.18
2	Paucity of research on long-term benefits of faculty developments	3.68	1.07
3	Unclear students learning outcomes	3.67	1.07
4	Lack of belief on any relationship in teaching skills with the knowledge of the individual and/or clinical skills	3.67	1.03
5	Faculty perceptions of a research culture rather than emphasis on teaching	3.61	1.11

SD, standard deviation.

faculty members are viewed as valuable assets and rewarded for their educational contribution, faculty development then becomes an institutional investment with the broader goals and missions of the educational institution being met [15].

The institutional culture affects the value and competency ascribed to faculty development. Resistance to change could originate from the higher level in the medical institution or school. Therefore, programs for faculty development must be explained fully to decision-makers, and their involvement at the early stage of planning is crucial. A successful program of faculty development requires the political and financial support of the decision-makers including the dean's office. The management should develop mechanisms so that the faculty members can be relieved of their clinical duties in order to attend these limited or more comprehensive programs [6].

Another major barrier is that many faculty members do not realize the impact of a faculty development program on their current and future professional performance. This resistance to change may delay or even stop implementation of such programs. Teachers' attitude and misconception about the benefit of training and the link between teaching and clinical skills, and teaching excellence may not be perceived well by teachers. The set of tasks expected of the faculty is increasing with the new directions in medical education [6]. Worldwide, most medical academics have received little or no training or preparation for their teaching responsibilities, which is more true in Saudi Arabia. This is because academic appointments are typically based on a combination of a relevant clinical qualification, administrative skills, and to a lesser extent research excellence. Rarely are academics required to demonstrate evidence of medical education qualification or teacher training [16]. Factors that improve motivation must be identified, and a group of highly motivated and enthusiastic staff should be selected to start with the faculty development program. Some teachers are unaware of their teaching and learning concepts with disjunction between their practice and their beliefs. Faculty development should improve teaching practice with active engagement of teachers and reflection on their teaching sessions. Faculty development should provide opportunities to discuss their assumptions about teaching [17].

Several papers have been written about the rule of faculty development in promoting scholarship. Boyer [18] has identified four categories of scholarship. These include the scholarship of discovery, integration, application, and teaching. Although many will agree that the

promotion of scholarship is an important aspect of faculty development, this component was the least important barrier noticed in our study. This could be attributable to lack of knowledge on definition, types, and applications of scholarship and the importance of disseminating scholarly work. A faculty development program could focus on definitions of scholarships, ways of promoting this concept among colleague and pairs, and methods of disseminating scholarly work.

Increasing multiculturalism and diversity is considered an important resource that stimulates learning. For faculty members to be able to meet the needs of diverse learners, they will need to stay abreast of new developments in their fields, characteristics of their students, and the various strategies of teaching to multiple learning styles [19]. This barrier was among the least important barriers in our study. This is mainly because students are all Saudis, and the culture is purely an Islamic culture with lack of multiculturalism and diversity. In this context, faculty development programs can help build faculty capacity for meeting the need for students and incorporating new content about issues of diversity and multiculturalism.

Several international publications have highlighted many factors that impede faculty change; the most common of which are inadequate training, lack of time, and no or minimal incentives. However, there may be other barriers that might prove to be equally important [12,20]. Our study is consistent with other publications in the field of faculty development programs. However, this study is more comprehensive, and it is the first to come from the Middle East focusing on this topic in this region.

5. CONCLUSION

Our study demonstrated that faculty development in Saudi Arabia is in its infancy with many barriers impeding its implementation and success. This study validated these predetermined barriers in the Saudi context. There is a need to overcome all barriers on both faculty and institutional levels in order to establish an outstanding faculty development program. Barriers can be removed by allocating more time for faculty members to develop their skills in medical education, requesting support from managers, organizations, departments and school, and educating faculty about the importance of change based on advances of medical education. In addition, we recommend to increase the awareness of the faculty regarding the importance of faculty development program and being an educational teacher with less resistance to change. However, institutions have to recognize the importance of faculty development programs as one-third of the barriers were related to institutions. Further studies are necessary to explore the barriers and difficulties in implementing a faculty development program at both the national and Gulf country levels.

CONFLICTS OF INTEREST

The authors declare they have no conflicts of interest.

AUTHORS' CONTRIBUTION

HA and BS contributed in study conceptualization and writing (original draft) the manuscript. AA contributed in data curation

and formal analysis. LA contributed in project administration. AT and JN supervised the project and wrote (review and editing) the manuscript.

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