ORIGINAL ARTICLE

FACULTY DEVELOPMENT IN MEDICAL INSTITUTIONS: WHERE DO WE STAND IN PAKISTAN?

Fatima Mukhtar, Abdul Majeed Chaudhry*

Department of Community Medicine, *Surgery, Lahore Medical & Dental College, Lahore, Pakistan

Background: The term 'Faculty Development' encompasses all those activities which help faculty members enhance their academic competencies. It comprises three domains: personal development, professional development, and instructional and course development. The objectives of this study were to determine the proportion of medical colleges involved in faculty development activities, to assess the types of faculty development activities, and to identify the factors influencing such activities, along with formulating recommendations for faculty development. **Methods**: A cross-sectional study was conducted in the medical colleges (public and private) of Pakistan from September to December 2010. A questionnaire was designed through literature review, was pre-tested and then sent via mail to principals of the institutions outside Lahore. Questionnaires were self-administered to respondents within Lahore. Apart from describing the data, Chi-square and Fisher's exact tests were applied to determine statistical association between categorical variables at $p \leq 0.05$. **Results:** All the 65 public and private sector medical colleges recognised by the Pakistan Medical and Dental Council (PMDC) at that time were included in the study. Responses were received from 45 medical institutions, of which 37 (82%) were involved in faculty development activities. Training on communication skills were provided by 31 (84%), and teaching skills by 30 (81%) institutes. Stress management was the topic addressed by 15 (40%) institutes. Most institutes conducted such activities once a month (43%), followed by once every six months (30%). Faculty at all levels was equally involved in training activities, except senior registrars involved by 5 (14%). The presence of Medical Education Department (DME) in the college ($p<0.01$), the respondent's designation ($p=0.0038$) and the provincial location of the college ($p=0.036$) were significantly associated with faculty development activities. The barriers to faculty training were identified as: lack of incentives 20 (54%), lack of faculty interest 15 (40%), and dearth of trained facilitators 15 (40%). **Conclusion:** Majority of the medical institutes were involved in faculty development activities imparting training regarding communication and teaching skills. Presence of DME in the college, the respondent's designation, and the provincial location of the college positively influenced faculty development activities. Lack of incentives, lack of faculty interest and a shortage of trained faculty were identified as barriers.

Keywords: Medical College, faculty development, medical education

INTRODUCTION

The term 'Faculty development' encompasses all those activities which help faculty members enhance their academic competencies.[1] It comprises of three domains; personal development, professional development and instructional and course development.[2,3]

In the West, various faculty development endeavours have been undertaken. Ranging from the establishment of medical education departments to the initiation of formal faculty development programs given different names; Medical Education Scholars Programs (MESP), 'Academies' and 'gross-root programs'.[4] Other forms of faculty development activities include Continuing Medical Education (CME) and Continuing Professional Development (CPD). These activities are not only required to sustain the standard of medical practice and assure quality of care to the patient but is also at times a mandatory requirement by certain certification authorities for recertification.[5]

Recently, medical education has evolved as a new discipline, imposing new roles and responsibilities on the teaching professionals. In order to prepare a new cadre of competent teachers, researchers, educators and professionals to face the demands and challenges of medical education we need to resort to faculty development. It is not an easy task, for it requires institutional commitment, allocation of appropriate resources and in addition recognition to the faculty undergoing developmental activities.[6,7]

But such endeavours certainly benefit the health professionals. As it helps them improve and develop skills in teaching, research, curriculum development, development of assessment tools, leadership qualities, mentoring and promotion of the scholarship of teaching.[8,9] Additionally, it has a positive impact on their behaviour and attitude. Effective teaching benefits the organization produce an efficient prodigy.[10]

In Pakistan, the Higher Education Commission of Pakistan realised in year 2003 that in order to come at par with international standards of education, it was essential to have an efficient, superior quality and skilful

faculty. The achievement of this goal was possible only through faculty development activities; which led to the formation of a Learning Innovation Division having the responsibility of conducting training courses in the country.[2]

To date, there is no data available on faculty development activities undertaken by the medical colleges of Pakistan. This study was conducted to determine the proportion of medical colleges involved in faculty development activities, to assess the types of faculty development activities and to identify the factors influencing such activities. In addition, formulate recommendations for faculty development.

METHODOLOGY

A cross-sectional study was conducted in the medical colleges of Pakistan, from September 2010 to December 2010. The list of recognized medical institutes in Pakistan as of October 2010, was downloaded from the website of the Pakistan Medical & Dental Council.[11] A questionnaire on faculty development activities containing open questions and closed statements was used to collect information from the 65 recognised public and private sector medical colleges. The questionnaire was developed based on literature review and was pre-tested before it was administered.

The questionnaires were mailed to the principals of 50 public and private sector medical colleges of Pakistan outside Lahore. Questionnaires were personally administered by the surveyor to the principals of 15 public and private sector medical colleges within Lahore. A covering letter explaining the purpose of the study accompanied the questionnaires.

In the questionnaire respondents were requested to comment if their institutes had conducted any type of faculty development training, and if so, which type of training was conducted, how frequent were such activities and which level of the faculty was trained. Furthermore, respondents were asked to identify the barriers to such activities and lastly give their recommendations regarding improvement in the faculty development activities of their institute.

Data was analysed using SPSS-16. The proportion of medical colleges involved in faculty development activities was calculated. Data on the topics covered during trainings, frequency of training activities, the level of faculty trained and the barriers to training activities is described in the form of frequency and percentages. Chi-square test and Fisher's exact test were used to test statistical significance between faculty development and the factors associated with it at a cut-off value of $p \leq 0.05$. Fisher's exact test was used for the variables having an expected cell value of less than 5, i.e., public or private ownership of college, respondent's designation and presence of medical education department in the college, whereas Chi-square was used to test statistical significance between faculty development and provincial location of the college.

RESULTS

At the time of study, there were 65 medical colleges (public and private) recognised by Pakistan Medical and Dental Council. Of these, responses were received from 45 teaching institutions in the country. One of the returned questionnaires was incomplete, therefore was not included in the analyses. Overall this constituted a response rate of 69%. Out of a total of 45 medical colleges who responded, 37 (82%) indicated that they had a faculty development program.

The popular topics for training included communication skills 31 (84%) and teaching skills 30 (81%), followed equally by both curriculum development and research methodology 29 (78%). Whereas, stress management was the topic addressed by 15 (40%) institutes. The category of 'Others' included the topics of orientation to medical education, skills lab, training of trainers, leadership skills and small group discussions (Table-1).

Table-1: Topics covered during faculty development trainings (n=37)

Topics	Number (%)
Communication skills	31 (84)
Teaching skills	30 (81)
Curriculum development	29 (78)
Research methodology	29 (78)
Problem based learning	27 (73)
MCQ/OSCE development	25 (67)
Assessment skills	25 (67)
New educational strategies	24 (65)
Using information and communication technology (ICT)	24 (65)
Stress management	15 (40)
Others	14 (38)

An approximately equal number of faculty members at all levels were imparted training by the medical institutes, i.e., 32 (86%) professors, 34 (92%) associate professors, 36 (97%) assistant professors and 36 (97%) demonstrators. Whereas, only 5 (14%) senior registrars were involved in training activities. These trainings were provided once in a month 16 (43%) by most institutes, followed by once in six months 11 (30%), and once in a year 4 (11%). The category of 'others' in frequency of training included responses such as twice a month, twice in six months and once in two years.

The factors associated with faculty development activities are shown in Table-2. The presence of medical education department in the college ($p<0.01$), the respondent's designation ($p=0.0038$) and the provincial location of the college ($p=0.036$) were significantly associated with faculty training activities.

Table-2: Proportion and factors associated with faculty development activities in medical colleges of Pakistan

Factors	Total medical Institutes n=45	Institutes involved in faculty development activities n=37	Institutes not involved in faculty development activities n=8	*p*
Province				
Punjab	24 (53%)	23 (62%)	1 (12.5%)	0.036
Sindh	10 (22%)	7 (19%)	3 (37.5%)	
KPK	11 (25%)	7 (19%)	4 (50%)	
College				
Public	22 (49%)	20 (54%)	2 (25%)	0.243*
Private	23 (51%)	17 (46%)	6 (75%)	
Medical education department				
Established	35 (78%)	34 (92%)	1 (12.5%)	<0.01*
Not-established	10 (22%)	3 (8%)	7 (87.5%)	
Respondent's designation				
Principal	23 (51%)	15 (40%)	8 (100%)	0.0038*
Director DME	22 (49%)	22 (60%)	0 (0%)	

*Fisher's exact test used as expected cell value is less than 5

The barriers to faculty training were identified as lack of incentives 20 (54%), lack of faculty interest 15 (40%) and dearth of trained facilitators 15 (40%) by a predominant number of medical institutes. And only one institute pointed out 'irrelevant/uninteresting topic' as a barrier to training activities. The barriers identified by respondents which comprise the 'others' category include 'lack of funds', 'travelling problems for facilitators in reaching institutes located in remote areas', and "due to lack of qualified medical educationists the current office holders of medical education department are overburdened with clinical and academic work' (Table-3).

Table-3: Barriers to faculty development identified by institutes involved in training activities (n=37)

Barriers	Number	%
Lack of incentives	20	54
Lack of faculty interest	15	40
Lack of trained facilitators	15	40
Time consuming	13	35
Frequent movement of faculty	3	8
Lack of institutional commitment	3	8
Uninteresting/ irrelevant topics covered	1	3
Others	5	13

DISCUSSION

The study showed encouraging results and a dedication to faculty development by the 37 (87%) of Pakistan's 45 medical colleges that responded. The remaining 8 medical colleges did not report the presence of a faculty development program, but did show an interest in wanting to have such a program. A study by Mcleod PJ in 1987, revealed 75% of the Canadian medical schools to have a faculty development program at their institutes[1] and according to another study by Mcleod *et al* in 2010 all the 17 (100%) medical schools had established an effective faculty development program in Canada.[12]

Most of the medical colleges in Pakistan were found to be providing training in communication skills 31 (84%) in the present study. And this is also the topic which was identified by most doctors during a needs assessment study for professional development on faculty members by Siddiqui.[13] The other frequently covered topics were found to be teaching skills 30 (81%), curriculum development 29 (78%) and research methodology 29 (78%). Most of the trainings were provided once a month followed by once in six months and the faculty at all levels was equally involved in training activities, except senior registrars. Faculty development programs in other countries have incorporated various topics and schedules. In the medical colleges of our neighbouring country India teaching-learning, media and student assessment were identified as popular topics during a survey of medical schools conducted in 2009.[14] The faculty development program at the University of Wisconsin, included the topics of effective clinical teaching, evidence based medicine, leadership/advocacy roles for physicians, technology tools for teachers and enhanced doctor-patient communication which were covered over 5 weekends.[15] In Nepal, a new methodology of medical faculty training was evaluated; in which training was provided on 'Teaching-learning methodology and evaluation' to faculty of four medical colleges through a 3 day workshop.[16] The on-line faculty development program is yet another method which is being used for faculty training in South Asia.[17]

The factors associated with faculty development activities were found to be the presence of medical education department in the college ($p<0.01$), the respondent's designation ($p=0.0038$) and the provincial location of the college ($p=0.036$) in the current study. However, literature review was unable to identify any study having looked at associations between faculty development and the factors seen in this particular study.

The medical schools in Pakistan identified lack of incentives 20 (54%), lack of faculty interest 15 (40%) and a shortage of trained facilitators 15 (40%) as barriers to faculty development activities. According to a study conducted in the medical schools of Canada, the main obstacles to faculty development programs identified were lack of funds, poor participation and lack of facilitator evaluation.[1] In another study conducted by Smolen DM on nurses, the factors affecting faculty development were identified as the non-availability of resources, lack of faculty interest and faculty responsibility for professional development.[18] The non availability of full time faculty, constraints of time and money and lack of infrastructure were the barriers identified in medical colleges of India.[14]

Experts on faculty development have said that 'Academic vitality is dependent upon faculty members' interest and expertise; faculty development has a critical role to play in promoting academic excellence and innovation, and it is a tool for improving the educational vitality of our institutions through attention to the competencies needed by individual teachers and to the institutional policies required to promote academic excellence'.[19]

RECOMMENDATIONS

It is recommended that mandatory training workshops should be conducted by the PMDC, recognition should be given to faculty undergoing training activities and there should be active interaction between institutes to facilitate each other in matters pertaining to medical education.

REFERENCES

1. McLeod PJ, Faculty development practices in Canadian medical schools. CMAJ 1987;136:709–12.
2. Siddiqui ZS, Faculty Development: A Step towards Quality and Excellence. J Quality Tech Manag 2009;5(11):17–26.
3. Singh T, Bansal P, Sharma M. A need and necessity for faculty development: the role of medical education units in the Indian context. South East Asian J Med Educ 2008;2(1):2–6.
4. Fidler DC, Khakoo R, Miller LA. Teaching Scholars Programs: Faculty Development for Educators in the Health Professions. Acad Psychiatry 2007;31:472–8.
5. Tang GWK. Continuing Professional Development – a Surrogate for Recertification? Ann Acad Med Singapore 2004;33:711–4.
6. McLean M, Cilliers F, Van Wyk JM. Faculty development: yesterday, today and tomorrow. Med Teach 2008;30:555–84.
7. Srinivas DK, Adkoli BV. Faculty development in Medical Education in India: The need of the day. Al Ameen J Med Sci 2009;2(1):6–13.
8. Gruppen LD, Frohna AZ, Anderson RM, Lowe KD. Faculty development for educational leadership and scholarship. Acad Med 2003;78:37–41.
9. Harris D, Krause KC, Parish DC, Smith MU. Academic competencies for medical education. Fam Med 2007;39:343–50.
10. Steinert Y, Mann K, Centeno A, Dolmans D, Spencer J, Gelula M. A systematic review of faculty development initiatives designed to improve teaching effectiveness in medical education: BEME Guide No. 8. Med Teach 2006;28:497–526.
11. Pakistan Medical and Dental Council (2006). www.pmdc.org.pk. Accessed on 10th October 2010.
12. McLeod PJ, Steinert Y. The evolution of faculty development in Canada since the 1980s: coming of age or time for a change? Med Teach 2010;32(1):e31–5
13. Siddiqui ZS. Professional development of academics: a needs assessment. 1st International Conference on Assessing Quality in Higher Education, Lahore, Pakistan. 2006. p.9 –33.
14. Adkoli BV, Sood R. Faculty development and medical education units in India: a survey. Natl Med J India 2009;22(1):28–32.
15. Gjerde CL, Kokotailo P, Olson CA, Hla KM. A Weekend program model for faculty development with primary care physicians. Fam Med 2004;36:S110–5.
16. Baral N, Paudel BH, Das BK, Aryal M, Das BP, Jha N *et al*. An Evaluation of training of teachers in medical education in four medical schools of Nepal. Nepal Med Coll J 2007;9:157–61.
17. Anshu, Bansal P, Mennin SG, Burdick WP, Singh T. Online faculty development for medical educatots: experience of a soth Asian Program. Educ Health (Abingdon) 2008;21:175.
18. Smolen DM. Constraints that nursing program administrators encounter in promoting faculty change and development. J Prof Nurs 1996;12:91–8.
19. Hendricson WD, Anderson E, Andrieu SC, Chadwick G, Cole JR, George MC *et al*. Does Faculty Development Enhance Teaching Effectiveness? J Dental Edu 2007;71:1513–33.

Address for Correspondence:

Dr. Fatima Mukhtar, Assistant Professor, Department of Community Medicine, Lahore Medical & Dental College, Lahore, Pakistan.

Email: fatimamukhtar@doctor.com