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Original Research Article

Assessment of 'learning needs' of the Medical Teachers in a newly established medical college in Haryana, India

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Abstract: There is no formal training of teaching for doctors joining a medical college as faculty. Medical curriculum is becoming more complex and it is important to train teachers in these newer advancements such as the use of computers, e-learning, simulation etc. The currently used faculty development (FD) programs currently in India are not based on the need of teachers working in Indian medical colleges. The aim of this study was find the 'learning needs' of medical teachers working in a newly established medical college in Haryana, India. It was a cross-sectional study carried out among all the faculty members working in Bhagat Phool Singh Government Medical College for Women. A list of important competencies which are essential to be developed in a medical teacher was compiled by the principal investigator from the literature search. Based on this list, a semi-structured questionnaire was designed, pilot-tested and administered to all faculty members. The study participants self-rated their performance (good, average, poor) on these twenty-two competencies. A total of 69 faculty member's i.e Professors, Associate Professors, and Assistant Professors participated in this study. They felt most confident in teaching in small groups (81.2%), teaching in a clinical setting (71.0%), maintaining effective student-teacher relationship (63.8%), Interactive teaching (58.0%) and Coaching and mentoring the students (58.0%). The skills they felt least confident in were using Software (75.3%), Developing leadership and managerial skills (63.7%), Understanding Adult learning principles(60.8), Learning conflict management(60.8%), Role-Modelling for appropriate attitudes and ethical values(59.4%), Teaching in community setting (58.0%),conducting research(56.5%), doing Integrated teaching(56.5%), Providing feedback for learning(55.0%) and formative and summative assessment of students (52.2%).76.8% faculty members were willing to devote 2.37 hours per week to learn/improve upon the competencies they felt deficient in.
Keywords: Learning needs, Faculty Development, Medical Education, Haryana, India

INTRODUCTION

In India, there is no formal training of teaching for doctors joining a medical college as faculty. Additionally, we have not kept pace with the newer trends in the field of medical education. Most medical teachers feel that their lack of knowledge of teaching skills and lack of availability of formal training in teaching hinders their growth as teachers [1]. Medical curriculum is becoming more complex and newer methods of curriculum delivery are being adopted. Hence, it is important to train teachers in these newer learning methods or advancements such as the use of computers, e-learning, simulation etc. It is identified that nearly twelve are competencies expected in a medical educator [2]. It has been shown that Faculty Development Programs (FDP) should be tailored to the needs of institutions, departments, and individuals, take a systematic approach in their planning, implementation, and evaluation, utilize self-directed learning and participatory education approaches, and contribute to both professional and personal development of the faculty [3].

The initial step of assessment of 'learning needs' of the medical teacher is crucial because it helps the teachers realize the 'gaps in their competencies' and

enables program organizers to prioritize their FDP. The focus of these programs needs to be based on the 'needs' of the faculty in order to develop their competencies required as a medical teacher. Based on this background, the present study was proposed to find the learning needs and readiness to participate in faculty development among medical teachers of a newly started Government Medical College of Haryana, India

METHODOLOGY

We conducted a Cross-sectional study among the faculty members working in BPSGMC (W).It is a newly developed medical college functioning since the year 2011. As the promotion of academic excellence is one of the institutional policy; the faculty is being trained in medical teaching technology. It has 54 Assistant Professors, 24 Associate Professors and 15 Professors currently working in different departments of BPSGMC (W).

Based on the available literature, a list of important competencies which are essential to be developed in a medical faculty member was compiled by the principal investigator. A semi-structured questionnaire incorporating this list was prepared and it was pilot tested among 5% of the faculty members and necessary changes were incorporated. The participants of pilot testing were excluded from the main analysis. This questionnaire was now self-administered to all the study participants following a brief explanation of the objectives of this study and the terminology used in the questionnaire by the principle investigator. A three-point Likert scale was used in which respondents were asked to rate their self-perceived performance (good, average, poor) on each of the competencies listed in the questionnaire. Two attempt was made to get the questionnaire filled by every faculty, however, if the faculty could not be contacted even after three attempts, or if he/she was not willing to participate in this study, then he/she was excluded from the study. However, basic profile of such participants was kept to do subgroup analysis. Responses to the questionnaire were kept anonymous and confidential and the guidelines of Helsinki Declaration were followed.

The analysis of numerical data was carried out using Microsoft Excel. The percentage of faculty who identified their needs by self-rating their competencies was calculated. If >50% of the faculty self-rated its performance as 'Poor' or 'Average' in a particular competency, then that competency is included as the 'learning need' of the faculty of this medical college.

RESULTS

A total of 69 questionnaires were returned, yielding a response rate of 73.4 % (Table 1).Table 2 shows the respondents' self-rated performance on the different competencies. Their self-rated performance received highest score on teaching in small groups (81.2%), teaching in a clinical setting (71.0%), Maintaining effective student-teacher relationship (63.8%), Interactive teaching (58.0%) and Coaching and Mentoring the students (58.0%).

The faculty felt least confident in using software-SPSS, Epi-info (75.3%), Developing leadership and managerial skills (63.7%), Understanding Adult learning principles to help students learn (60.8), Learning conflict management (60.8%), Role-modelling for appropriate attitudes and ethical values (59.4%), Teaching in community setting (58.0%), conducting research (56.5%), doing Integrated teaching (56.5%), Providing feedback for learning (55.0%) and Assessing students – formative and summative (52.2%).

A majority of the participants (76.8%) expressed willingness to participate in the activities of FDP and ability to spare an average of 2.37 hours per week (range 1 – 8) for this purpose. 18.8 percent indicated that they have no time and interest for FD activities.

Table 1: Study participation and response rate by faculty rank(n=93)

Faculty Rank (N=93)	Respondents N (%)
Professor (n=15)	9 (64)
Associate Professor (n=24)	18 (75)
Assistant Professor (n=54)	42 (75)
TOTAL	69 (73)

Table 2: Respondents' rating of their self-rated performance with respect to competencies

Skills	Performance Rating			
Skills/Competency descriptor for a teacher	Good	Average	Poor	(Average + Poor) response (%)
Teaching And Facilitate Learning				
Teaching large groups	39	26	4	30 (43.5)
Teaching small groups	56	10	3	13(18.8)
Integrated teaching	30	18	21	39(56.5)
Interactive teaching	40	20	9	29(42.0)
Teaching in a clinical setting	49	12	8	20(29.0)
Teaching in community setting	29	18	22	40(58.0)
Understanding Adult learning principles to help students learn	27	25	17	42(60.8)
Assessment and Evaluation				
Assessing students – formative and summative	33	20	16	36(52.2)
Providing feedback for learning	31	24	14	38(55.0)
Communication and Ethics				
Role-modelling for appropriate attitudes and ethical values	28	28	13	41(59.4)
Developing effective communication skills	38	22	9	31(44.9)
Maintaining effective student-teacher relationship	44	18	7	25(36.2)
Acquiring good inter-personal skills	37	21	11	32(46.4)
Coaching and Mentoring				
Coaching and Mentoring the students	40	17	12	29(42.0)
Academic counseling	36	21	12	33(47.8)
Research				
Conducting research	30	34	5	39(56.5)
How to use Software (eg SPSS, Epi-info)	17	31	21	52(75.3)
Writing for publication	36	25	8	33(47.8)
Use Of Technology and Simulations				
Acquiring new skills eg web based learning, using computers/media for teaching	39	22	8	30(43.5)
Educational Management and Leadership Skills				
Developing leadership and managerial skills	25	31	13	44(63.7)
Learning Time management	37	22	10	32(46.4)
Learning conflict management	26	31	11	42(60.8)

Figures in parentheses indicate percentages

DISCUSSION

Faculty development (FD) has assumed a great significance in meeting the diverse roles and responsibilities of a medical educator as a clinician, researcher, administrator and educational leader [4]. FD is most likely to be successful if it is linked to the needs of the local faculty, strikes a balance between individual and organizational needs, addresses the specific needs of the teachers and is site-focused. Well-planned programmes should strike a balance between meeting individual and organizational needs [5]. The initial step of needs assessment is necessary because it helps teachers realize their potential and enables organizers to prioritize their FD activities.

Most medical teachers feel that their lack of knowledge of teaching skills and lack of availability of formal training in teaching hinders their growth as teachers. In a study carried out in Korea, the most urgent needs for faculty development were identified for the teaching competencies of “diagnosis and reflection” followed by “test and feedback,” and “facilitation [6]. Whereas, we identified - Using Software (75.3%), Developing leadership and managerial skills (63.7%), Understanding Adult learning principles to help students learn(60.8)and Learning conflict management(60.8%) as the most important needs of our faculty. A study carried out among experts using Delphi technique found Interactive teaching, student-centred teaching, small group teaching and good teaching practices as the highest priority themes [7].

We have also tried to find out the willingness of the faculty to participate in FD. This data can be used in scheduling FD programs. Barriers like negative

behavior of seniors, reluctance to release teachers for training and not allowing them to apply new skills has been mentioned in literature [8]. Similar constraints were mentioned by participants in this study also.

Nearly one third of the eligible participants did not participate in the study; hence the results cannot be generalizable. The data generated through the self-rating of performance, is likely to have some bias as the faculty may not accurately recognize the limitations of their skills as teachers. Respondents are also likely to over-report their willingness to commit time to FD.

CONCLUSIONS

This study highlights the need for adopting Faculty Development programmes tailored according to the 'perceived needs' of the medical teachers.

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