Perceptions of Medical College Faculty Regarding Their Role as Undergraduate Teachers

Savita S Patil[1], Jayashree S Seeri[2], Narayanaswamy DM[3]

Author's Affiliation:
[1]Associate Professor, [2]Professor and Head, [3]Assistant Professor cum statistician, Dept. of Community & Medicine, BGS Global Institute of Medical Sciences, Bangalore

Correspondence
Dr. Jayashree s seeri
seerijaya@gmail.com

ABSTRACT

Background and Objective: Under the AMEE Guide No 20, Harden has shortlisted 12 major roles of medical teachers. There is a need to study how medical teachers perceive these roles in undergraduate teaching.

Objective was to assess the perception in perceptions of medical college faculty regarding their role as undergraduate teachers.

Methods: Quantitative study conducted for faculty of a medical college by purposive sampling technique.Data regarding teacher's perceptions collected using standard questionnaire and it was graded on a 5 point Likert scale.

Statistical analysis used: data was analyzed by proportions, frequency and x^2 was applied. **Results:** There were 105 faculty, 18 professors, 20 associate professors and 67 assistant professors. 50 of them had undergone training in medical education. 16(17%) information providers, 12(13%) said as role models to a considerable extent, 21(22%) said as curriculum evaluators, 22(23%) as planners, 27(28%) as course organizers to a considerable extent. The current commitment in all the roles was significantly less as against their preferred future commitment.

Conclusions: Majority of the faculty perceive the need for performing most of the roles mentioned in AMEE guide, however their personal commitment was considerably less. There was no significant difference in current roles between the medical education trained and untrained groups.

Key-words: Medical College faculty, Perceptions, Undergraduate student

INTRODUCTION

Medical teachers perceive their roles differently depending on several factors, such as their own educational background, the educational environment of the institute and the level of their training as a medical teacher. Defining the role of medical teachers in medical colleges is important to prepare them for this complex task. Under the AMEE Guide No 20, Harden has shortlisted 12 major roles of medical teachers. There is a need to study how medical teachers perceive these roles in undergraduate teaching. Challenging educational situation: One of the goals as per the Medical Council of India, Postgraduate Medical Education Regulations 2000, is to produce postgraduates who shall have acquired the basic skills in teaching of the medical and paramedical professionals. However, with no formal training and assessment of the same in the curriculum, there is lack of understanding of the roles of a faculty in undergraduate teaching. This leads to faculty entering medical colleges without prior understanding of their roles and get moulded to the environment they are provided with. Faculty new to the role of academician are often unprepared by the "degree granting institutions" for the unique challenges of an academic career.[1] Medical college faculty assumes academic duties without prior formal training unlike other

school teachers. Generally, it is accepted that training is essential for a teacher to be an effectiveeducator.[2] There are large varieties of facets in medical education which need to be learnt separately and formally. Simply self-generated ideas and personal experience are not enough to make a good teacher even if he/she is a vastly learned person in his/her subject. Therefore, there is definitely a need for medical education workshops in medical colleges.[3] Teaching is a very complex skill and art. It requires eagerness, self-discipline, hard-work, practice and feedback to make sure that one is on the right track. Even those endowed with inherent talent, must undergo training to improve their performance.[4] The concept of training in Medical Education in India started in the late seventies and in 1999, the Medical Council of India insisting every medical college to have a Medical Education Unit (MEU) and in 2010 made it mandatory for every medical professional to undergo a minimum of basic level training. Teaching facilitates learning and encourages the learners to learn in a better way. The purpose of teaching is not merely dispensing information, but to develop skills and attitude too.[5] Under the AMEE Guide No 20, Harden has identified 12 roles of a medical teacher. These have been grouped into six areas based on medical and educational expertise. The teachers are now required to become educational planners[.6] There is a limited research on perceptions of medical college faculty regarding their roles. With this background above study has been undertaken with the aim of assessing the perceptions of medical college faculty regarding their role in undergraduate teaching.

OBJECTIVES

The study was conducted to assess the perceptions of medical college faculty regarding their role in undergraduate teaching; and also to observe the difference in perceptions regarding their role in undergraduate teaching between faculty trained and untrained in medical education technology (MET).

MATERIALS AND METHODS

Following clearance from **Institutional Ethics Committee**; consent was obtained by the participants after explaining the study protocol and the purpose of the study.

It is a quantitative study, conducted at a medical college in Bangalore. All the faculty members from the rank of senior residents/ tutors to the professors were included in the study. Those who were not willing to participate were excluded from the study. Baseline information of the faculty including the specialty, training in Medical Education Technology, work experience, time spent in undergraduate teaching, etc. were collected by personal interview in a Pretested Proforma. Data regarding teacher's perception of their role as teacher was collected using standard questionnaire mentioned in AMEE Guide No 20, developed by R.M. Harden and Joy Crosby, "Questionnaire used to assess the teacher's perception of the importance of the 12 roles and their current personal commitment and preferred personal future commitment to each role"[6]. The teacher's perceptions were graded on a 5 point Likert scale.

Statistical analysis:

The data obtained was analyzed using SPSS version 18 software. Descriptive statistics like frequency, mean scores of perceptions, were calculated. The scores were compared between various cadres of the faculty and between those who have undergone basic training in medical education technology and those who haven't undergone the training. Chi-square test was applied. p value < 0.05 was considered to be statistical significant.

RESULTS

Medical college faculty from the rank of tutors to the professors were included in the study. For the analysis they were categorized into two groups for convenience purpose, first group with associate professors and professors (Senior faculty group) and second group with assistant professors, Senior residents and tutors (Junior faculty group). Fifty (52%) faculty members had undergone training in Medical education technology. (Table 1)

On enquiring about the current personal commitment of faculty members in various roles, 7-16(17%) of them said that they were information providers and only 12(13%) of them felt they were role models to a considerable extent. Around 21(22%) of them said that they were curriculum evaluators, 22(23%) of them as planners and 27(28%) of them as course organizers to a considerable extent. On enquiring about the current personal commitment of faculty members in various roles, 7-16(17%) of them said that they were information providers and only 12(13%) of them felt they were role models to a considerable extent.

Around 21(22%) of them said that they were curriculum evaluators, 22(23%) of them as planners and 27(28%) of them as course organizers to a considerable extent. There was no significant difference between the senior and the junior faculty in any of the roles but for that as an examiner where only 4(6.8%) of the junior faculty said that were examiners as compared to 11(30.6%) of the senior faculty members. (Table 2)

Table 1: Comparison Current personal commitment of faculty members based on their designation

Roles	Preferred future personal commitment	Prof & Associate Prof N=36 (%)	Asst Prof, SR & Tutors N=59 (%)	Total N=95 (%)	p-value
(R 1,2)Information provider					
(R1) Lecturer in classroom setting	Considerable/Great	9 (25.0)	7 (11.9)	16 (16.8)	0.09
	None/Little/Some	27 (75.0)	52 (88.1)	79 (83.2)	
R2) Teacher in clinical or practical class setting	Considerable/Great	4 (11.1)	3 (5.1)	7 (7.4)	0.27
	None/Little/Some	32 (88.9)	56 (94.9)	88 (92.6)	
R3&4) Role model in the teaching setting	Considerable/Great	4 (11.1)	8 (13.6)	12 (12.6)	0.72
	None/Little/Some	32 (88.9)	51 (86.4)	83 (87.4)	
R5)Facilitator-Mentor	Considerable/Great	10 (27.8)	9 (15.3)	19 (20.0)	0.13
	None/Little/Some	26 (72.2)	50 (84.7)	76 (80.0)	
R6)Learning facilitator	Considerable/Great	3 (8.3)	7 (11.9)	10 (10.5)	0.58
	None/Little/Some	33 (91.7)	52 (88.1)	85 (89.5)	
R7) Examiner	Considerable/Great	11 (30.6)	4 (6.8)	15 (15.8)	0.002*
	None/Little/Some	25 (69.4)	55 (93.2)	80 (84.2)	
R8) Curriculum evaluator	Considerable/Great	11**(30.6)**	10 (16.9)	21 (22.1)	0.12
	None/Little/Some	25 (69.4)	49 (83.1)	74 (77.9)	
R9) Planner	Considerable/Great	8 (22.2)	14 (23.7)	22 (23.2)	0.86
	None/Little/Some	28 (77.8)	45 (76.3)	73 (76.8)	
R10) Course organizer	Considerable/Great	11 (30.6)	16 (27.1)	27 (28.4)	0.71
	None/Little/Some	25 (69.4)	43 (72.9)	68 (71.6)	
R11) Resource developer - study guides	Considerable/Great	15**(41.7)**	20 (33.9)	35 (36.8)	0.44
	None/Little/Some	21 (58.3)	39 (66.1)	60 (63.2)	
R12) Resource developer -learning resource Materials	Considerable/Great	13**(36.1)**	13 (22.0)	26 (27.4)	0.13
	None/Little/Some	23 (63.9)	46 (78.0)	69 (72.6)	

Table 2: Comparison of Preferred personal future commitment of faculties based on their designation

Roles (R)	Current personal Commitment Perceptions	Prof & Associate Prof N=36(%)	Asst Prof, SR & Tutors N=59 (%)	Total N=95 (%)	p-value
(R 1,2) Information provider					
R1) Lecturer in classroom setting	Considerable/Great	8 (22.2)	12 (20.3)	20 (21.1)	0.82
	None/Little/Some	28 (77.8)	47 (79.7)	75 (78.9)	
R2) Teacher in clinical or practical class setting	Considerable/Great	9 (25.0)	13 (22.0)	22 (23.2)	0.74
	None/Little/Some	27 (75.0)	46 (78.0)	73 (76.8)	
R3&4) Role model in the teaching setting	Considerable/Great	11 (30.6)	21 (35.6)	32 (33.7)	0.61
	None/Little/Some	25 (69.4)	38 (64.4)	63 (66.3)	
R5)Facilitator-Mentor	Considerable/Great	16 (44.4)	21 (35.6)	37 (38.9)	0.39
	None/Little/Some	20 (55.6)	38 (64.4)	58 (61.1)	
R6)Learning facilitator	Considerable/Great	13 (36.1)	17 (28.8)	30 (31.6)	0.45
	None/Little/Some	23 (63.9)	42 (71.2)	65 (68.4)	
R7) Examiner	Considerable/Great	9 (25.0)	20 (33.9)	29 (30.5)	0.36
	None/Little/Some	27 (75.0)	39 (66.1)	66 (69.5)	
R8) Curriculum evaluator	Considerable/Great	20 (55.6)	30 (50.8)	50 (52.6)	0.65
	None/Little/Some	16(44.4)	29 (49.2)	45 (47.4)	
R9) Planner	Considerable/Great	22 (61.1)	34 (57.6)	56 (58.9)	0.73
	None/Little/Some	14 (38.9)	25 (42.4)	39 (41.1)	
R10) Course organizer	Considerable/Great	23 (63.9)	32 (54.2)	55 (57.9)	0.35
	None/Little/Some	13 (36.1)	27 (45.8)	40 (42.1)	
R11) Resource developer -study guides	Considerable/Great	21 (58.3)	33 (55.9)	54 (56.8)	0.81
	None/Little/Some	15 (41.7)	26 (44.1)	41 (43.2)	
R12) Resource developer -learning resource materials	Considerable/Great	22 (61.1)	30 (50.8)	52 (54.7)	0.33
	None/Little/Some	14 (38.9)	29 (49.2)	43 (45.3)	

The faculty were asked for their future personal commitments with their roles as an undergraduate teacher. Around 21 to 23% felt that they could be information providers whereas 32 (33.7) of them opined that they would be role models to a great extent. More than half of them said that they could be curriculum evaluators 50 (52.6%), planners 56 (59%) and course organizers 55 (58%) to a great extent. There was no significant difference between the senior and the junior faculty in any of the mentioned roles. (Table 3)

On comparing the faculty's perceptions regarding their current personal and preferred future commitments, there was a significant difference in all the roles except as a lecturer in class room setting. It was observed that, though currently lesser faculty felt they were greatly committed to the said roles, significantly more number of faculty members felt they should be performing these roles to a great extent as an undergraduate teacher.

There was no significant difference between the faculty who were trained as compared to un-

trained faculty in Medical Educational Technology regarding their perceived future commitments in

their roles as an undergraduate teacher. (Table 4)

Table 3: Comparison of Current personal and preferred future commitments of all the Facultie

Roles (R)	N = 95	Considerable/Great	None/Little/Some	p value
(R 1,2) Information provider				
R1) Lecturer in classroom setting	Current personal commitment	16	79	0.459
	preferred future commitment	20	75	
R2) Teacher in clinical or practical class setting	Current personal commitment	7	88	0.002
	preferred future commitment	22	73	
R3&4) Role model in the teaching setting	Current personal commitment	12	83	0.001
	preferred future commitment	32	63	
R5)Facilitator-Mentor	Current personal commitment	19	76	0.004
	preferred future commitment	37	58	
R6)Learning facilitator	Current personal commitment	10	85	0.004
	preferred future commitment	30	65	
R7) Examiner	Current personal commitment	15	80	0.016
	preferred future commitment	29	66	
R8) Curriculum evaluator	Current personal commitment	21	74	<0.001
	preferred future commitment	50	45	
R9) Planner	Current personal commitment	22	73	<0.001
	preferred future commitment	56	29	
R10) Course organizer	Current personal commitment	27	68	<0.001
	preferred future commitment	55	40	
R11) Resource developer-study guides	Current personal commitment	35	60	0.006
	preferred future commitment	54	31	
R12) Resource developer-learning resource materials	Current personal commitment	26	69	0.001
	preferred future commitment	52	33	

Table 4: Association between Preferred future commitment and Training in Medical Education Technology

Roles	Current personal Commitment	Faculty trained in MET (n=50)(%)	Faculty untrained in MET (n=45)(%)	Total (n=95) (%)	p-value
R 1,2)Information provider					
R1) Lecturer in classroom setting	Considerable/Great	8 (16.0)	12 (26.7)	20 (21.1)	0.20
	None/Little/Some	42 (84.0)	33 (73.3)	75 (78.9)	
R2) Teacher in clinical or practical class setting	Considerable/Great	11 (22.0)	13 (28.9)	24 (25.3)	0.44
	None/Little/Some	39 (78.0)	32 (71.1)	71 (74.7)	
R3&4) Role model in the teaching Setting	Considerable/Great	14 (28.0)	19 (42.2)	33 (34.7)	0.14
	None/Little/Some	36 (72.0)	26 (57.8)	62 (65.3)	
R5)Facilitator-Mentor	Considerable/Great	22 (44.0)	18 (40.0)	40 (42.1)	0.69
	None/Little/Some	28 (56.0)	27 (60.0)	55 (57.9)	
R6)Learning facilitator	Considerable/Great	15 (30.0)	18 (40.0)	33 (34.7)	0.26
	None/Little/Some	35 (70.0)	26 (57.8)	61 (64.3)	
R7) Examiner	Considerable/Great	16 (32.0)	20 (44.4)	36 (37.9)	0.21
	None/Little/Some	34 (68.0)	25 (55.6)	59 (62.1)	
R8) Curriculum evaluator	Considerable/Great	21 (42.0)	26 (57.8)	47 (49.5)	0.12
	None/Little/Some	29 (58.0)	19 (42.2)	48 (50.5)	
R9) Planner	Considerable/Great	26 (52.0)	27 (60.0)	53 (55.8)	0.43
	None/Little/Some	24 (48.0)	18 (40.0)	42 (44.2)	
R10) Course organizer	Considerable/Great	30 (60.0)	27 (60.0)	57 (60.0)	0.89
	None/Little/Some	20 (40.0)	19 (42.2)	39 (40.0)	
R11) Resource developer -study guides	Considerable/Great	26 (52.0)	28 (62.2)	54 (56.8)	0.31
	None/Little/Some	24 (48.0)	17 (37.8)	41 (43.2)	
R12) Resource developer-learning resource materials	Considerable/Great	28 (56.0)	23 (51.1)	51 (53.7)	0.63
	None/Little/Some	22 (44.0)	22 (48.9)	44 (46.3)	

DISCUSSION

The role of a medical teacher as mere information provider has changed long since the development in the field of educational technology, rapid progress and vastness in biomedical science and explosion in information technology. All these factors have influenced the expectations from a medical teacher. From information provider to curriculum developer, from a traditional role model to change agent, Harden in AMEE guide no. 20 defined 12 roles of a medical teacher clubbed into 6 themes to be an effective medical teacher. [6]

The current study is an attempt to look into the perceptions of teachers in a medical college with respect to these roles. The present study reveals that only 7 to 13 % of the faculty considered them-

selves to be information providers to a great extent. This is far lesser than the study done in Islmabad where they found 86-88% of them perceiving themselves as information providers.[7] Similarly, only 13% of the faculty perceived themselves as role models in the present study as compared to 77% in Islamabad study. Role models are those who inspire imitation and influence people working with them to develop new skills and achieve their potential. It is one of the most important roles to be played by a medical teacher. I a study by Wright SM etal, the faculty felt that the most critical thing was role modelling in Medicine.[8] The most important role incurrent personal commitment was that of resource developer with 35% where as it was 66% in the other study.[7] An article byN. A. Jafarey stresses the importance of locally produced guidelines in management of common health problems. [9] The current study observed no significant difference in roles between the senior and junior faculty members similar to Islamabad study.[7]

There was a significant difference in current commitment and perceived future commitment in all the mentioned roles. This is an encouraging finding that the faculty members are currently have restricted in their roles they are open to the idea of implementing these roles. This could be realised through FDPs and providing conducive environment at the institutions.

The study also determined the difference in preferred future commitment between MET trained and Untrained groups. There was no significant difference between the two groups. This could be attributed to the widespread awareness among the faculty members regarding their changing roles. How ever many studies have proven beyond doubt that Faculty Development Programmes have had a positive impact in knowledge and professional competence.[10,11]

CONCLUSION

The study reveals that the current commitment of faculty is much lesser as compared to other studies. However they show a positive attitude towards their future commitments in all the roles of an undergraduate medical teacher.

REFERENCES

1. Puri A, Graves D, Lowenstein A, Hsu L. Newfaculty's perception of faculty development initiatives at small teaching institutions. ISRN Education.2012;2012:9.

2. Wilkerson L, Irby DM. Strategies for improving teaching-practices: a comprehensive approach to faculty development. Acad Med 1998; 73(4): 387–396

3. Uttam Kumar Paul, Somenath Ghosh, Debranjan Ghosh, Arup Bandyopadhay.Impact of Medical Education Technology Workshops in a Rural Medical College of Bihar: A Questionnaire Study. International Journal of Scientific Study 2015;3(5):5-9.

4. Ajay Gaur, Akanksha Bansal, Jyoti Binda. Impact of basic medical education on medical teachers.JMR 2015; 1(3): 95-103 May- June

5. Singh T, Gupta P, Singh D. Principles of Medical education. 4th ed. New Delhi: Jaypee Publishers; 2013.

6. Crosby, RM Harden, Joy. AMEE Guide No 20: The good teacher is more than a lecturer-the twelve roles of the teacher. Med Teach. 2000; 22(4): 334-47.

7. Nawabi S, Khan RA, Yasmin R. Teachers' perceptions of their roles in medical colleges. 2015;1(1):24-29

8. Wright SM, Carrese JA. Excellence in role modeling: insight and perspectives from the pros. Can Med Assoc J 2002;167:638–43.

9. Jafarey NA. Changing role of Medical College Teachers. J Pak Med Assoc 2006;56(7):297-98

10. Yadav AK, Choudhary S. Faculty perception of medical council of India basic course workshop in medical education technologies as faculty development programme. Int J Basic Clin Pharmacol 2016;5:846-9.

11. Bilal, Bilal , Salman Y. Guraya, Songsheng Chen et al. The impact and effectiveness of faculty development program in fostering the faculty's knowledge, skills, and professional competence: A systematic review and meta-analysis. Saudi Journal of Biological Sciences.2017 [cited 2018 Aug12]. Available from:https://doi.org/10.1016/j.sjbs.2017.10.024