



Original Research Article

Self-perception of medical faculties and students regarding the attributes of an effective medical teacher

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ARTICLE INFO

Article history:

Received 22-07-2020

Accepted 24-07-2020

Available online 24-10-2020

Keywords:

Faculty Development

Effective teaching

Medical teachers

Medical students

Teacher attributes.

ABSTRACT

Introduction: Effective teaching in medicine is essential to produce good quality doctors. To improve the quality of medical education and effectiveness of educator in medical college, one must identify the attributes that makes a medical teacher effective. As teachers have a significant role in students' learning, it is pertinent to identify the factors which make them effective.

Materials and Methods: This was a cross-sectional study. The study population included the faculties and I year MBBS student of Dr. M K Shah Medical College & Research Centre, Ahmedabad. A questionnaire comprising of 14 attributes of different qualities of teacher was specifically prepared. Faculty members and students were asked to rank different qualities as per their choice.

Objectives: The objective of this study is to identify the important characteristics of effective medical teachers as perceived by faculties as well as students

Results: Out of 181 participants, 116 were students of the I MBBS and 65 were faculty members of different departments. The top three desirable qualities of an effective teacher in our study as perceived by the students are knowledge of subject, enthusiasm and availability of teachers. While faculty perception regarding the top three desirable qualities are knowledge of the subject, well preparedness for teaching and enthusiasm.

Conclusion: Faculty development programme should focus on improving the attributes of medical teachers as identified by faculty themselves and students. Future studies can identify more significant attributes in greater depth and details.

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1. Introduction

Effective teaching in medicine is essential to produce good quality doctors. Faculty development and faculty evaluation are key components of medical education. To improve the quality of medical education and effectiveness of medical educators, one must identify the attributes that makes a medical teacher effective. As teachers have a significant role in students learning, it is pertinent to identify the factors which make them effective.¹

The purpose of faculty evaluation is to identify faculty members who exhibit effective teaching skills. A number of studies have attempted to identify the characteristics of an effective teacher. For a long time the effectiveness of the

teacher has been measured on the basis of student outcomes or students' perceptions. Now the trend has changed to include the teacher's self-evaluation or evaluation by peers in overall assessment of the medical teacher.^{2,3}

This information is useful for several reasons:

1. To know characteristics that can be transferred to other faculty who may be less effective teachers,
2. Effective teaching will obviously benefit students and improve their performance.

Trying to define exactly what comprises an effective medical teacher is difficult. Even more difficult is to understand which attributes are most helpful in specific teaching situations and which attributes are not helpful. There have been many studies which describe which

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attributes in medical teacher were found most helpful from the student's perspectives but the data available for teacher perspective is limited.⁴⁻⁸ Further to this, author has also found presently that certain studies have been conducted which compare whether the medical student and the faculty differ in their perception of which attributes are most important attributes of effective teachers.⁹ Hence the present study was designed to identify the relative importance of characteristics of effective teachers from medical teachers' as well as student' perspective and to compare them.

2. Materials and Methods

The study was conducted at Dr. M K Shah Medical College & Research Centre, Ahmedabad after obtaining approval from Institutional Ethics Committee and Head of Institution. The participants comprised of faculty members of medical undergraduate course (M.B.B.S.) and first year MBBS students of the institution. All the faculty members of the institution and first year MBBS students were approached to participate in the study on voluntary basis. Written informed consent from all the participants was obtained.

This is a cross-sectional questionnaire based study. A questionnaire was specifically prepared to meet the objective of the study. Statements describing desired qualities of an effective teacher were formulated based on previous research conducted by Simerijit Singh et al.¹ The questionnaire was prepared by discussion among the MEU members of the institute after a review of the existing literature.

All the details of the study and objectives were explained to the participants. A questionnaire was given to the participants to respond. The questionnaire consist of different qualities of teacher that a student and faculty perceives as best qualities of a medical teacher.

These questions were prepared to assess the following aspects of medical teacher: class room behaviour/instructional delivery, interaction with students, personal qualities and professional development.

The questionnaire was refined and validated through a pilot study on a small subgroup of faculty members and by obtaining inputs from medical education experts in the institution and nodal centre for faculty development. Based on these inputs, the final questionnaire was drafted and used in the study. Final questionnaire comprised of 14 attributes of different qualities of teacher. Table 1 mentioned the different attributes to be ranked from 1 to 14.

Participants were asked to rank the attributes mentioned in Table 1 on scale of 1 to 14 based on perception of qualities of effective medical teacher. (Scale from 1 to 14, 1- highest and 14- lowest)

Each statement was discussed with the respondent to explain its meaning.

Table 1: Attributes to be ranked from 1 to 14 for the qualities of effective teacher

Attributes	
Enthusiasm	Well Prepared
Availability	Good examiner
Knowledge	Evaluation in examination
Clinical Competency	Scholarly activity
Feedback Skills	Non-judgemental
Organizational Skills	Sincerity
Professionalism	Listening skills

3. Results

Table 2: Demographic details and response rate of study participants

Demography details	Faculty's Data (65)	Student's Data (116)
Male: Female	34:21	66:50
Age (Years)	43.11 (Mean)	17-19 (Range)
Response Rate	84.6%	91.3%

All faculty members (N=80) of the institute were invited to participate in the study. Mean teaching experience of faculty is 12.9 years while it ranges from 0.5 year to 39 years. Out of these, 20 faculties are from preclinical disciplines, 22 from paraclinical and 23 from clinical disciplines.

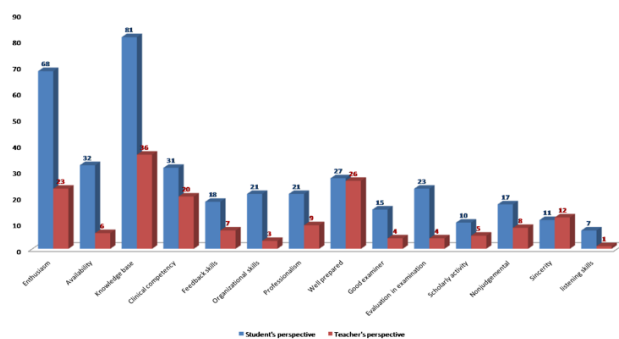


Fig. 1: Ranking attributes from teacher's and student's perspective

Figure 1 shows the observation of ranking attributes of various qualities from teachers and students perspective.

Top three attributes of qualities of effective medical teacher from student's perspective are knowledge of the subject, enthusiasm for teaching and availability of the teacher while from the teacher's perspective are knowledge of the subject, well preparedness for lecture and enthusiasm for teaching (Table 3).

Three attributes of effective medical teacher which are considered least important from student's perspective are scholarly performance of the teacher, leniency of evaluation in examination and listening skill of the teacher while

Table 3: Top 3 attributes of qualities of effective medical teacher

Student's perspective (N=117)	Teacher's perspective (N=65)
Knowledge base (81, 69.2%)	Knowledge base (36, 55.38%)
Enthusiasm (68, 58.1%)	Well Prepared (26, 40%)
Availability (32, 27.4%)	Enthusiasm (23, 35.38%)

from teacher's perspective are listening skill of the teacher, organization or administrative skill of the teacher and leniency of evaluation in examination. (Table 4)

Table 4: Bottom 3 attributes of qualities of effective medical teacher

Student's perspective (N=117)	Teacher's perspective (N=65)
Scholarly activity (42, 35.9%)	Listening skill (1, 1.54%)
Evaluation in examination (39, 33.3%)	Organizational skills (3, 4.61%)
Listening skill (38, 32.5%)	Evaluation in examiner (4, 6.15%)

Teaching is a means of offering a unique, definite, and essential social service through specialized training. This service is in the form of facilitation of learning, based on the beliefs, needs, and practices of each community and each individual.¹⁰ Since the inception of learning process, teaching is considered to be the most important part. Effective teaching in medicine is essential to produce good quality doctors. Enthusiasm, knowledge, well preparedness and availability are most important attributes considered by student as well as faculty for effective medical teachers. In the words of Ernest Leroy, "a poor surgeon hurts 1 person at a time but a poor teacher hurts 130".³

Medical education is a constantly developing field as the emerging new diagnostic and treatment modalities. John T Biehn stated has said that "the field of medical education is somewhat unusual in that the great majority of medical teachers have had no formal training as teachers. Most of us begin teaching careers with the naïve hope that we might impart something of value through having a combination of clinical experience and interest in the welfare of the student (or postgraduate trainee)".¹¹ Most of us don't have had any formal training as teachers. Nancy Hueppchen et al. stated that most of the medical faculty learns to teach by observing their mentors or their teachers.¹² This emphasizes the need to be aware of the qualities required to be an effective teacher to deliver the ever evolving medical curriculum.

The development of teachers' professional behaviour should constitute an integral part of all faculty development programmes. The quality of the teacher in terms of various attributes for the effective teacher primarily determines the successful outcome of any curricular modification however the novel it is. Currently major emphasis has been given on teacher's self-evaluation or evaluation by the peers

in the overall assessment process of medical teacher.^{13,14} In medical literature, many authors have published their opinions regarding the characteristics of an effective teacher. But to the best of the knowledge of the author, a few studies have done which have analyzed the feedback of students as well as the teachers regarding the qualities of effective medical teacher and compared them.^{12,15}

Knowledge base attribute was given highest priority both from student's perspective (69.2%) as well as from teacher's perspectives (55.38%), higher priority by the student as compared to teachers. Hassan T et al. had also stated that the ideal medical teacher is highly knowledgeable and able to maintain this skill lifelong.¹⁶ He also added that to achieve and maintain this expertise, medical teacher needs to be enthusiastic, energetic, having good memory power and stay "up to date" in his subject. 'Knowledge of subject' was rated the highest by the faculty irrespective of field, gender, teaching experience or cultural background by Singh S et al. 2013.¹ According to Adediwura and Tayo it has been established that there is a high correlation between what teachers know and what they teach.¹⁷ Irby identified six domains of knowledge essential for good medical teachers and stated "Excellence in clinical teaching requires clinical knowledge of medicine, of specific patients, and of context plus an educational knowledge of learners, general principles of teaching, and case-based teaching scripts".¹⁸ Knowledge of subject is a cognitive quality which can be developed and has been found to be an important characteristic in various studies across non-medical disciplines also.^{19–21}

Enthusiasm was another attribute which was ranked among top 3 attributes by both student's (58.1%) and teacher's perspective (35.38%). Enthusiasm was considered as most effective attribute in study conducted by Buchel TL & Edwards FD 2005 while as the second most important parameter of an effective teacher Singh S et al. 2013.^{1,22} This is similar to the findings of Yilmaz A, who noted that a teacher should be "Enthusiastic, excited about teaching, dynamic, and motivates students to learn".²³ Similarly in a study by Duvivier et al. on perspectives of clinical skills lab teachers, enthusiasm emerged as the most important theme.¹⁵ Two studies in the dentistry discipline found enthusiasm of the teacher as one of the important characteristic of an effective teacher.^{24,25}

Scholarly activity, evaluation in the examination and listening skills were not given much priority by majority of the students and these attributes remained as least important attributes from the perspective of the students. Buchel TL & Edwards FD also felt strongly that scholarly activity has little importance in defining an effective clinical educator, a finding consistent with the work of previous authors.^{22,26}

Listening skill was also not given much priority by the faculty and it was the least important attribute from student's perspective also. Similar finding was reported by Buchel

TL & Edwards FD.²² Organizational skills and evaluator in examination were also least priority attributes from the teacher's perspective.

Availability was considered to be the 3rd attributes given the highest priority by the students (27.4%) which was not in case of teacher. Similarly Buchel TL & Edwards FD noted that unlike their faculty members, students felt more strongly that it was important for quality educators to be readily available and to be able to provide a safe, nonjudgmental, nonthreatening learning environment.²²

4. Conclusion

To summarise, knowledge of the subject and enthusiasm are the most important contributes of the effective medical teacher from the perspectives of students as well as teachers. While scholarly activity, listening and organizational skills are least important contributes of the effective medical teacher. But before making generalization of these findings certain study limitations must be taken into account. Firstly, present study was conducted only on first MBBS students. Responses of medical students from all the academic years should be taken into consideration. Secondly responses from the different medical educational institutes must be taken into account. Lastly, even with the provided definitions, there may have been confusion or differences in how different respondents interpreted our terminology. Hence, similar study should be conducted across various medical colleges and getting feedback across all MBBS student to come to conclusion regarding the characteristics of effective medical teacher.

5. Acknowledgement

I am sincerely thankful to all the students, and faculty members for their participation. My sincere acknowledgment to my HOD Dr. Varsha J Patel and all the faculties of the nodal centre-MET of NHL Municipal Medical College, Ahmedabad for their continuous guidance and support.

6. Source of Funding

None.

7. Conflict of Interest

None.

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Cite this article: Shah D, Patel VJ. **Self-perception of medical faculties and students regarding the attributes of an effective medical teacher.** *IP Int J Comprehensive Adv Pharmacol* 2020;5(3):125-129.