



MEDICAL TEACHERS' PERSPECTIVE ON EVALUATION OF TEACHING EFFECTIVENESS

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ABSTRACT Development of the Cognitive, Affective and Psychomotor domains lies at the heart of medical education. Teaching effectiveness is seen as the teacher's ability to help student understand the subject, acquire skills and exhibit both. The evaluation of the quality of teaching is on the rise in higher education institutions. But these feedback systems have inherent disadvantages. So these feedback systems are not accepted by the teachers. In this study we used a preformed and pretested questionnaire to find the most important criteria from teacher's point of view that should be included in such an evaluation system. This study reports a positive attitude of teachers towards evaluation of teaching effectiveness. The criteria should evaluate multidimensional aspects of teaching not only related to the teacher but also skills achieved by students, participation in faculty development, study atmosphere, feedback about teaching.

KEYWORDS : teaching effectiveness, evaluation

INTRODUCTION:-

Development of the Cognitive (knowledge), Affective (attitudes) and Psychomotor (skills) domains lies at the heart of medical education. (1) Thus medical education needs to develop doctors with clear thinking, responsive and decisive in nature, exhibiting appropriate skills in order to cure patients. The role model for medical student is his teacher. The teacher must facilitate students to achieve their highest level of independent thinking and skills. (2, 3, 4, 5, 6) Teaching effectiveness is seen as the teacher's ability to help student understand the subject, acquire skills and exhibit both. This obligates the teacher to possess many qualities like knowledge, skills, decision making and enthusiasm to teach. (2)

The use of evaluation of the quality of teaching is on the rise in Higher education institutions. This is used for formative as well as summative decisions. Some approaches like student feedback, peer evaluation, students' course grades, administrator ratings are used by the institutes. But these feedback systems have inherent disadvantages; also a clear definition about what constitutes effective teaching is lacking. So use of these tests to evaluate a teacher creates a sense of insecurity amongst teachers. Teachers complain that the criteria set are not comprehensive. They evaluate many secondary aspects instead of the quality of teaching itself. Many extraneous factors such as student characteristics, the learning environment and the nature of the tests that could influence the outcomes are not taken into account and every responsibility is placed on teachers. Again this feedback information mainly affects salary and promotion of the teacher than making changes in the quality of teaching itself. So these feedback systems are not accepted by the teachers. (7, 8, 9, 10, 11)

Teaching is multifaceted, and there is no single criterion of effective

Table 1: The questionnaire including instructions and the response obtained

Measurement of Teaching Effectiveness should include following Characteristics: ✓)

(M – most important, I – important L – less important N- not important)

Characteristic	Total	M	%	I	%	L	%	N	%
Up-to-date review of literature	22	10	45.45	11	50	0	0	1	4.55
Syllabus covered	22	5	22.73	16	72.73	1	4.545	0	0
Appropriate use of AV aids	22	8	36.36	11	50	3	13.64	0	0
Student learning activities	22	6	27.27	14	63.64	0	0	0	0
Time management	22	11	50	10	45.45	1	4.545	0	0
Motivation of students	22	12	54.55	10	45.45	0	0	0	0
Teacher – Student rapport	22	7	31.82	14	63.64	1	4.545	0	0
Innovative & creative teaching techniques	22	8	36.36	12	54.55	2	9.091	0	0
Organization and planning	22	11	50	11	50	0	0	0	0
Strengths in teaching	22	5	22.73	15	68.18	2	9.091	0	0
Suggestions for improvement	22	5	22.73	16	72.73	1	4.545	0	0
Student Performance in Exams	22	3	13.64	11	50	8	36.36	0	0

teaching. Therefore, the measures of teaching quality should include many sources of data that will cover all the criteria to provide comprehensive information about the effectiveness of teaching. (7, 10) In this study we tried to find the most important criteria from teacher's point of view that should be included in such an evaluation system.

MATERIAL AND METHODS:-

This study was conducted between January to March 2016. In order to assess the teacher's perception of characteristics that should be evaluated in a teaching evaluation system, a questionnaire consisting of 24 questions was preformed and pretested. It consisted of questions regarding teacher capabilities, teaching methods, achievements, work environment, student performance and learning environment. This study was approved by the College Ethical Committee. The questionnaire was distributed to medical teachers of pre and para-clinical faculties at the Govt. Medical College. Total 22 teachers took part in the study. The questionnaire was properly explained to each and their doubts were cleared.

Inclusion Criteria: Teachers of pre and para-clinical faculties willing to take part in the study

Exclusion Criteria: Non teaching staff, residents, those not willing to take part in the study.

Statistical Analysis: The responses for each question were given four options and the percentage response for each option was determined for each question.

RESULTS:-

Skills achieved by students	22	1	4.545	18	81.82	3	13.64	0	0
Job performance of Graduates	22	2	9.091	12	54.55	8	36.36	0	0
Class size	22	2	9.091	10	45.45	9	40.91	1	4.55
Classroom facilities	22	2	9.091	9	40.91	11	50	0	0
College (study) atmosphere	22	2	9.091	17	77.27	3	13.64	0	0
Papers/ Posters/ Publications	22	1	4.545	12	54.55	6	27.27	3	13.6
Honours achieved	22	0	0	10	45.45	9	40.91	3	13.6
Participation in faculty development activities	22	1	4.545	18	81.82	3	13.64	0	0
Working environment	22	6	27.27	15	68.18	1	4.545	0	0
Stress at work	22	8	36.36	13	59.09	1	4.545	0	0

Organization and planning of lectures and motivation of students are found to be most important points. While skills achieved by students, participation in faculty development, college (study) atmosphere, feedback about teaching are found to be important factors.

DISCUSSION:-

The questions are divided roughly into 6 categories as mentioned in the material and methods which are discussed as follows:

1) Teacher capabilities:-

Even though "self learning" is the best method of learning, many students need guidance. (12) Good teaching is essentially good communication and good communication requires clear explaining by the teacher and intelligent absorption by the student. It involves transfer of knowledge rather than transfer of information. Rightly so there should be proper planning and organization in terms of coverage of essential syllabus and literature; again this has to fit within given limited time period. (2, 13) Most teachers have given weightage to these characteristics as far as evaluation of teacher is concerned. Similar findings have been reported by Aziz Kamran et. al. (10) Advent of newer audio-visual aids made the teaching-learning activities simpler. Still professional skills remain cornerstone of successful medical practice. Therefore, these teaching aids are complementary to teaching and not a substitute. So, appropriate use of these media is warranted. (14) A teaching evaluation system without appropriate feedback is of no use. Teacher himself is also a lifetime learner. When the teacher knows his strength, he can amplify that. Simultaneously if his weaknesses are pointed out, he can modify them. In this study, the teachers expect appreciation of their strengths in teaching and a word about the improvements needed in their teaching. (8) Similar findings have been reported in their study by Green ME et. al. (15), Carole J et. al. (16), Arreola RA (17), Harden R M et. (18), Farahnaz Kamali et al (11)

2) Teaching methods:-

Teaching essentially is an art and skill. Each topic or concept has different level of complexity. It is the role of teacher to make it simple for better understanding by the students. Changes in classroom approach and delivery of knowledge that match the difficulty of the topic give better understanding. Use of innovative and creative teaching techniques and student learning activities can make any topic more interesting and result in better understanding by the students. (13) Appropriately so, teachers find such learning activities to be important. Similar findings have been reported in their study by Green ME et. al. (15) Good teacher can touch the soul of his students and motivate them, allay their anxiety. When students are well understood and properly guided by their teacher, they perform better not only in examinations but also in their career. Establishment of student-teacher rapport finds greater importance then. Learning involves three steps-discovering, memorizing and acquiring particular skills. The teacher can help them to set their goals, believe in their abilities, set rewards and support in their struggle through life. Obviously this will help them in setting their career. (9, 19) Rightly so motivation becomes most important in the study. Harden R M et. (18) al have reported similar finding in their study.

3) Achievements by teacher:-

"Teaching is not a lost art, but the regard for it is lost tradition."
- Barzun (20)

The number and quality of publications and honors achieved have become of prime importance to be recognized as teacher scholar, also in promotion and determination of salary, while teaching quality has become secondary. (21, 22) Unfortunately then these characteristics become more important to teachers as is indicated in the study. Aziz Kamran et al (10), Charles E. Glassick et. al. (23), Linda Z et al (24) report similar findings in their study.

4) Work environment:-

When every faculty member believes that he is cared and listened to by his superiors and colleagues, he can bring forth his true potential. Participation in faculty development activities gives everyone a role to fulfill according to his capabilities. Also the performance of the teacher is affected by the day to day stress. Administrators drive faculty behavior as they develop and implement the reward structures. If the work environment is cheerful, understanding and co-operative, he still blossoms as a teacher. If there is tension between the teacher and the administrator or colleagues, this affects his performance. (25) Therefore, teachers consider the work environment to be most important. Similar findings have been reported by Green ME et.al. (15). Carole J et. al. (16), Arreola RA (17), Subha Ramani (26), Linda Z et al (24) in their study.

5) Student performance:-

Student performance in examinations is a well-accepted criterion of teaching effectiveness, but this is a short term goal. With our current structure of evaluation system and availability of ready-made notes, guides, etc. the performance of students in examinations depends more on the preparation by the student than teaching. However, development of skills by the students requires guidance by the teacher. Hence, skills achieved by the students find greater importance as a criterion of evaluation in the study. The job performance by the students set long term goal. This involves proper use of the skills and also capability of the student to survive the rat race. (27, 28) Still this criterion is considered to be important. Callahan D et al (29), Hamilton JB et al (30) have reported similar finding.

6) Learning environment:-

Every institution has a culture: a set of beliefs, values, and knowledge that is shared among participants within the institution. This culture, has a tremendous effect on the behavior and achievements by its members. The culture i.e. the college (study) atmosphere should find greater emphasis in the evaluation system then. Same is indicated in the study. Also, when class size is small, the teachers know each student individually, establish better teacher-student relationship. This cumulates in better learning by the students. The physical condition of the classrooms and laboratories also affects the learning experience. Students learn better in a well lit and ventilated room. (31) Therefore, these factors also find importance in the study. Rene' E E et al (5) report similar findings in their study.

A teacher's responsibility is not only to teach earning skills but to show path of excellence or perfection in physical, mental, social and economic domains of life. In the very short time available for lectures, practicals, demonstrations, etc the teacher has to simultaneously analyze many students and adjust himself to the caliber of the students. Now a day, students expect plenty of marks with minimum efforts and ignore other domains of life. Even the institutes expect bright results with least concern about all round development of the students.

Obviously then, evaluation of teaching by such students or administrators is quite frustrating for the teacher. A good teacher with thorough subject knowledge, adapting to student capabilities, study atmosphere and physical condition of the classroom tries to give his hundred percent. (6, 18) What teachers expect in return is an honest consideration of the circumstances and all aspects that affect student performance.

Strengths of the study:-

- Positive approach was observed amongst teachers.
- Teachers were aware of the existing methods of evaluation of teaching

Limitations of the study:-

- All medical faculty were not involved in the study (especially

- clinical). Their opinions can differ.
- Data size is small. However, a large study involving teaching faculty of many medical colleges in the country can be carried out.
 - Evaluation of teaching is considered only from teacher's point of view.

CONCLUSION:-

This study reports a positive attitude on the part of teachers in evaluation of teaching effectiveness. The method to evaluate teaching effectiveness should include various criteria that encompass multidimensional aspects of teaching. Apart from evaluation of teacher's capabilities and teaching methods, work environment, study atmosphere and student performance should also be included in the evaluation process with due emphasis on each. This system should also provide resources and opportunities to enhance or improve teaching effectiveness.

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CONFLICT OF INTEREST:-

The authors declare that they have no conflict of interest.

REFERENCES:-

1. Pulido M PA, Cravioto A, Pereda A, Rondón R, Pereira G. Changes, trends and challenges of medical education in Latin America. *Med Teach* 2006;28:24-9.
2. M. Kothari, L. Mehta, S. Jogalekar, P Bhuiyan; MET Cell, SGM & KEMH, Mumbai, The Art of Teaching Medical Students. 1996, 1: 1-3
3. Stalmeijer RE, Dolmans DH, Wolhagen IH, Muijtjens AM, Scherpbier AJ The development of an instrument for evaluating clinical teachers: involving stakeholders to determine content validity. *Med Teach*. 2008;30(8):e272-7
4. Elisabeth Paice, Shelley Heard, Fiona Moss How important are role models in making good doctors? *BMJ VOL 325* 2002: 707-710
5. Rene' E.E. Stalmeijer1, Diana H.J.M. Dolmans1, Ineke H.A.P. Wolhagen1, Arno M.M. Muijtjens1 & Albert J.J.A. Scherpbier The development of an instrument for evaluating clinical teachers: involving stakeholders to determine content validity. *Medical Teacher* 2008; 30: e272-e277 available at <http://dx.doi.org/10.1080/01421590802258904>
6. Ramani S, Leinster S. AMEE Guide no. 34: teaching in the clinical environment. *Med Teach*. 2008;30(4):347-64
7. Ronald A. Berk. Survey of 12 Strategies to Measure Teaching Effectiveness. *International Journal of Teaching and Learning in Higher Education* 2005, Volume 17, Number 1, 48-62
8. Charlotte Danielson. Evaluations That Help Teachers Learn. *Educational Leadership*. December 2010/January 2011 | Volume 68 | Number 4 The Effective Educator Pages 35-39
9. Dr. C. D. Bodhe, Dr. D. S. Jankar Teaching effectiveness: How do students evaluate their teacher? *International J. of Healthcare and Biomedical Research*, Volume: 03, Issue: 02, January 2015, Pages 155-159
10. Aziz Kamran, Mohammed Zibaei, Kamal Mirkaimi, Hussein Shahnazi Designing and evaluation of the teaching quality assessment form from the point of view of the Lorestan University of Medical Sciences students – 2010 *J Educ Health Promot*. 2012; 1: 43
11. Farahnaz Kamali, Nikoo Yamani, Tahereh Changiz Investigating the faculty evaluation system in Iranian Medical Universities. *J Edu Health Promot* 2014;3:12
12. Ozuah PO. First, there was pedagogy and then came andragogy. *Einstein J Biol Med*. 2005;21:83-87.
13. Ken Bain. What the Best College Teachers Do. Harvard University Press, Cambridge, MA, 2004, 15-19
14. Gonzalo JD, Heist BS, Duffy BL, Dyrbye L, Fagan MJ, Ferencich G, et al. Content and timing of feedback and reflection: A multi-center qualitative study of experienced bedside teachers. *BMC Med Educ* 2014;14:212.
15. Green ME, Ellis CL, Frémont P, Batty H. Faculty evaluation in Departments of Family Medicine: Do our universities measure up? *Med Educ* 1998;32:597-606
16. Carole J. Bland, Lisa Wersal, Wendy VanLoy, William Jacot Evaluating Faculty Performance: A Systematically Designed and Assessed Approach *ACADEMIC MEDICINE*, VOL. 77, NO. 1 / JANUARY 2002: 15-30
17. Arreola RA. Issues in developing a faculty evaluation system. *Am J Occup Ther*. 1999;53:56-63
18. Harden R M and Crosby J R (2000). AMEE Education Guide No 20: The good teacher is more than a lecturer – the twelve roles of the teacher. *Medical Teacher* 22(4): 334-347
19. Lauren Liberante. The importance of teacher-student relationships, as explored through the lens of the NSW Quality Teaching Model. *Journal of Student Engagement: Education matters* 2012, 2 (1), 2-9
20. Barzun J Teacher in America. New York. Jacques Barzun, Teacher in America Atlantic Monthly Press Little Brown and Co, Boston, 1945, p. 12.
21. Erin C. Grady, et al. Defining Scholarly Activity in Graduate Medical Education *J Grad Med Educ*. 2012 Dec; 4(4): 558-561.
22. Michael R. Wilson, et al Scholarly Activity Redefined: Balancing the Three-legged Stool. *Ochsner J*. 2006 Spring; 6(1): 12-14
23. Charles E. Glassick, Boyer's Expanded Definitions of Scholarship, the Standards for Assessing Scholarship, and the Elusiveness of the Scholarship of Teaching *ACADEMIC MEDICINE*, VOL. 75, NO. 9 2000: 877-880
24. Linda Z et al Implementing a comprehensive approach to managing faculty roles, rewards, and development in an era of change. *Academic medicine* vol 72, No 6 1997: 496-504
25. Tara G. Mehta, et al. The Organizational Health of Urban Elementary Schools: School Health and Teacher Functioning. *School Ment Health*. 2013 Sep 1; 5(3): 144-154.
26. Subha Ramani Twelve tips to promote excellence in medical teaching *Medical Teacher*, Vol. 28, No. 1, 2006, pp. 19-23
27. Fenwick, T. J. (2001). Using student outcomes to evaluate teaching. A cautious exploration. In C. Knapper & P. Cranton (Eds.), *Fresh approaches to the evaluation of teaching* (New Directions for Teaching and Learning, No. 88) (pp. 63-74). San Francisco: Jossey-Bass
28. Berk, R. A. (1988). Fifty reasons why student achievement gain does not mean teacher effectiveness. *Journal of Personnel Evaluation in Education*, 1, 345-363.
29. Callahan D, Crosby JR, Davies D, Davis MH, Dollase R, Friedman Ben-David M, Hamilton JD, Harden RM, Ross N, Smith SR Outcome-based education AMEE Medical Education Guide No 14, part III pg 26-28
30. Hamilton, J. B. III, Smith, M., Heady, R. B., & Carson, P. P. (1997). Using open-ended questions on senior exit surveys to evaluate and improve faculty performance: Results from a school of business administration. *Journal on Excellence in College Teaching*, 8(1), 23-48
31. Roff S, McAleer S. What is educational climate? *Med Teach*. 2001; 23(4): 333-4.