Perceptions of medical faculty regarding self assessment - A cross sectional study from a tertiary care teaching hospital

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Abstract

Background: Medical field requires the faculty development, because Quality of patient care is depending on the learning environment of physicians, they need good and effective teaching. Few studies have evidence that self-assessment can be improved by feedback, particularly video and verbal, and by providing explicit assessment criteria and benchmarking guidance. There was also some evidence that the least competent are also the least able to self-assess accurately. So there is a paucity of research demonstrating the effectiveness of these interventions in Indian context. The goal of this study is to fulfill this vital gap in the knowledge.

Aim: To assess the perceptions of the teachers regarding self-assessment and its impact on self and student’s performance.

Materials and methods: The study was a cross sectional study, conducted in a tertiary care teaching hospital, in Madurai, Tamil Nadu. A total of 63 study participants were included in the study, after checking for compliance with inclusion and exclusion criteria. The study participants were included in the study by convenient sampling.

Results: A total of 63 faculties from various streams participated in the study. Majority (about 95%) of the faculty either agreed or strongly agreed that self-assessment is useful method and can improve the teaching skills. But the proportions of faculty who strongly agreed that teaching can have positive impact on student’s performance is relatively low (30.2%). In fact many (9.5%) of the faculty disagreed with this. common methods of self-assessment methods reported by 33 to 43 % of faculty. Videotaping were reported by 3 (4.8%) and other methods were reported by 7 (11.1%) of faculty members.
**Conclusion:** Self-assessment is one of the good methods to assess and improve the teaching skills of faculty in medical field. Self-assessment also help full to improve planning, communication and also in career growth of medical faculty.

**Key words**
Faculty development, Self-assessment, Student’s performance.

**Introduction**
High quality patient care by the physicians is provided only if they learned from good and effective teaching during their learning stage. Therefore it is very important that the faculty in a clinical setting should be good and effective teachers [1, 2].

Faculty development, or staff development as it is often called, has become an increasingly important component of medical education. Given the increasing complexity and pressures of healthcare delivery, new approaches to teaching and learning, and competing demands on teachers’ time, faculty members require a broad range of teaching and learning strategies that can be used in diverse settings. To help faculty members fulfill their multiple roles, a variety of faculty development programs and activities have been designed and implemented [3, 4].

The effectiveness of teaching and its improvement in medical faculty was assessed by multiple sources like triangulation methodology [5], instrumental assessment with appropriate questionnaire [6]. So many studies have evidenced that triangulation methodology which is a combination of student, peer and self-assessment is the best way to assess the improvement of teaching skills of medical faculty [5, 7]. Many reviews have also identified that, Health professionals are aware of increasing expectation on their teaching skills from the learners and the authorities, and felt that identifying their own learning needs through a process of ongoing self-assessment is vital in improving their teaching skills [5, 8]. Even though some of investigators are not satisfying with the reliability of self-assessment [9, 10], it has merits like enforcing a reflective approach for self-development [11]. As per available literature, self-evaluation has a great place as assessment method in combination with others like student and peer assessment among universities and higher education [5]. Few studies have evidence that self-assessment can be improved by feedback, particularly video and verbal, and by providing explicit assessment criteria and benchmarking guidance. There was also some evidence that the least competent are also the least able to self-assess accurately [8].

However, despite numerous descriptions of utility of self-assessment, there is a paucity of research demonstrating the effectiveness of these interventions in Indian context. The goal of this study was to fulfill this vital gap in the knowledge.

**Objective**
- To assess the perceptions of the teachers regarding self-assessment and its impact on self and student’s performance.

**Materials and methods**
The study was a Cross sectional study, conducted in Velammal Medical College, which is a tertiary care teaching hospital in Madurai, Tamil Nadu. The data collection for the study was done between from April 2015 to June 2015.

**Study population:** The medical faculty, working in the study setting, who satisfied the inclusion and exclusion criteria during the study period, was the study participants.

**Sample size and sampling method:** A total of 63 study participants were included in the study, after checking for compliance with inclusion and exclusion criteria. The study participants were included in the study by convenient sampling.
Inclusion and exclusion criteria: The faculty who have completed at least 1 year teaching service and regular faulty of the institute were included.

Ethical approval
Approval of institute Human Ethics Committee was obtained. Informed written consent was obtained from all the participants, after explaining the objectives of the study, risks and benefits involved. The personal details of the patients were kept confidential throughout the study.

Statistical analysis
Data was collected by the direct face to face interview of the participants using a validated and structured questionnaire. Various responses of study participants to validated and structured questionnaire was Considered as primary outcome variables. Descriptive analysis of the data was done by using frequency and percentage for responses in the questionnaire. Appropriate grouping of the items in the questionnaires was done. IBM SPSS version 21 was used for statistical analysis.

Results
A total of 63 faculties from various streams participated in the study. Majority (about 95%) of the faculty either agreed or strongly agreed that self-assessment is useful method and can improve the teaching skills. But the proportions of faculty who strongly agreed that teaching can have positive impact on student’s performance is relatively low (30.2%). In fact many (9.5%) of the faculty disagreed with this (Table - 1).

There was a strong agreement that self-assessment and subsequent changes can improve planning methods, communication, and student assessment and continuing self-education, relatively less disagree in these areas whereas there was some amount of disagreement or uncertainty in the areas of student counseling and student assessment (Table - 2).

### Table - 1: Perceptions regarding self-assessment among faculty.

<table>
<thead>
<tr>
<th>Perception</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-assessment of teaching is an useful method to improve teaching</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>33</td>
<td>27</td>
</tr>
<tr>
<td>Self-assessment of teaching will improve teaching techniques</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>36</td>
<td>22</td>
</tr>
<tr>
<td>Self-assessment will have impact on student’s performance</td>
<td>0</td>
<td>6</td>
<td>10</td>
<td>28</td>
<td>19</td>
</tr>
</tbody>
</table>

(SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree)

### Table - 2: Perceptions regarding utility of self-assessment on different teaching skills.

<table>
<thead>
<tr>
<th>Area</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning of teaching methods</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>36</td>
<td>19</td>
</tr>
<tr>
<td>Communication</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>37</td>
<td>21</td>
</tr>
<tr>
<td>Providing resource</td>
<td>2</td>
<td>3</td>
<td>8</td>
<td>38</td>
<td>12</td>
</tr>
<tr>
<td>Student counseling</td>
<td>0</td>
<td>4</td>
<td>14</td>
<td>32</td>
<td>13</td>
</tr>
<tr>
<td>Student assessment</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>37</td>
<td>16</td>
</tr>
<tr>
<td>Continuing self-education</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>37</td>
<td>16</td>
</tr>
</tbody>
</table>

(SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree)

Majority of the faculty felt self-assessment can help in career progression. But significant proportion of the faculty either disagreed and also strongly disagreed or was uncertain about the student feedback and feedback from the peers as the useful method of self-assessment (Table - 3).

Nearly 60% of the faculty reported that they have done self-assessment in the past. Self-reflection, peer feedback evaluation and student feedback evaluation were the most common methods of self-assessment methods reported by 33 to 43 % of faculty. Videotaping were reported by 3 (4.8%) and other methods were reported by 7 (11.1%) of faculty members (Table - 4).

Table - 3: Perception about utility and modes of self-assessment.

<table>
<thead>
<tr>
<th>Perception</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self assessment of teaching help in career progression</td>
<td>1 (1.6%)</td>
<td>4 (6.3%)</td>
<td>7 (11.1%)</td>
<td>31 (49.2%)</td>
<td>20 (31.7%)</td>
</tr>
<tr>
<td>Student feedback should be a part of self assessment</td>
<td>3 (4.8%)</td>
<td>8 (12.7%)</td>
<td>2 (3.2%)</td>
<td>27 (42.9%)</td>
<td>23 (36.5%)</td>
</tr>
<tr>
<td>Feedback from other faculty members will help in self assessment</td>
<td>1 (1.6%)</td>
<td>9 (14.3%)</td>
<td>6 (9.5%)</td>
<td>32 (50.8%)</td>
<td>15 (23.8%)</td>
</tr>
</tbody>
</table>

(SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree)

Table - 4: Analysis of practices regarding self assessment.

<table>
<thead>
<tr>
<th>Practices</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you ever done self assessment of your own teaching</td>
<td>38 (60.3%)</td>
<td>25 (39.7%)</td>
</tr>
<tr>
<td>• Self reflection</td>
<td>27 (42.9%)</td>
<td>36 (57.1%)</td>
</tr>
<tr>
<td>• Peer feedback evaluation</td>
<td>21 (33.3%)</td>
<td>42 (66.7%)</td>
</tr>
<tr>
<td>• Student feedback evaluation</td>
<td>23 (36.5%)</td>
<td>40 (63.5%)</td>
</tr>
<tr>
<td>• Video taping of the class</td>
<td>3 (4.8%)</td>
<td>60 (95.2%)</td>
</tr>
<tr>
<td>• Other methods</td>
<td>7 (11.1%)</td>
<td>56 (88.9%)</td>
</tr>
</tbody>
</table>

Discussion

Even though some of the studies not satisfying with self-assessment methodology [9, 10], so many evidences from the existing literature are strongly supporting the self-assessment methodology for medical faculty development [5-8].

In current study, study population consist total of 63 faculties from various streams. Nearly 95% of the faculty of study population either agreed or strongly agreed that self-assessment is useful method and can improve the teaching skills. Like the current study, studies conducted by Beck R. J., et al. [12]; Tucker P. D., et al.; and Cosh J., et al. [13, 14] were also strongly agreed self-assessment plays very important role to improve the teaching skills. In the study conducted by Beck R.J., et al. [12] nearly 64% are in agreement with self-assessment can improve teaching skills. The current study the proportions of faculty who strongly agreed that teaching can have positive impact on student’s performance is relatively low (30.2%). In fact many (9.5%) of the faculty disagreed with this. But in the study of Beck, et al. [12] there was a strong agreement with positive impact on student.

As per the current study there is a strong agreement that self-assessment and subsequent changes can improve planning methods, communication, and student assessment and
continuing self-education were be improved by self assessment, and it was strongly agreed by the current study. But in the current study some amount of disagreement or uncertainty in the areas of student counseling and student assessment. Majority of the faculty felt self-assessment can help in career progression. Whereas strong disagreement or uncertainty about the student feedback and feedback from the peers as the useful method of self-assessment. Like the current study, in the study of Ross J.A., et al. [15]; self assessment of a faculty was considered as a great method to their professional growth. As per Ross J.A., et al. [15] self assessment helps to a faculty to improve his, teaching skills, communication skills with students and peers, and also to set goals in career progression.

Current study findings stated that, nearly 60% of the study participants were faced self-assessment process in the past. Among them 33 to 43 % of faculty said that Self-reflection, peer feedback evaluation and student feedback evaluation were the most common methods of self-assessment methods which they were faced. Only 3 (4.8%) members were reported Videotaping and other methods were reported by 7 (11.1%) of faculty members. Current study findings can be comparable with studies by Skeff, et al. (1983) [16] and Marvel (1991) [17]. As per the Skeff s study among 64 members of study participants, 75% of the faculty members were underwent intensive feedback method which includes videotape review, trainee questionnaire feedback, and teacher self-assessment,12% were faced videotaping and also student ratings. Remaining 12% assessed only by the ratings of the trainees. The progression of teaching skills and planning methods was great in intensive feedback group than the others. In the study of Marvel, et al. [17] all 16 study participants were assessed based on video tapes of their teaching, videotapes of five consultations per each study participant and also trainee resident ratings. Improvement in teaching skills was the main outcome measures of the study.

Conclusion
Self-assessment is one of the good methods to assess and improve the teaching skills of faculty in medical field. Self-assessment also help full to improve planning, communication and also in career growth of medical faculty.

References
2. Leach DC, Philibert I. High-quality learning for high-quality health care: getting it right. JAMA, 2006; 296(9): 1132-4.