

Structured Oral Examination as an Assessment Tool for Third Year Indian MBBS Undergraduates in Community Medicine

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Abstract

Introduction: Traditional viva are useful in assessing depth of knowledge and overall communication skill of student but demerits are many such as unequal time distribution for viva, gender bias, non uniformity, examiner's mood and so on. In present study we structured oral examination as an assessment tool for third year MBBS undergraduates in community medicine and evaluating the process by taking student's as well as faculty's feedback to minimize biases. **Material and Methods:** Permission from Dean as well as head of department was taken. A batch of 26 students was randomly selected and enrolled in to study after informed consent. Four faculty members were randomly divided in two groups. Faculty members in structured oral examination group were sensitized and trained about it. Each student has undergone same set of questionnaire consisting of simple recall and applied questions. All the students were simultaneously assessed with traditional and structured oral examination without intermixing. Feedback in the form of questionnaire as per Likert's scale was collected for both type of viva and from students and faculties. Appropriate statistical analysis was done. **Results:** Analysis depicted that students were overall satisfied with the structured oral examination and felt it better than the traditional viva. Statistically significant differences ($p = 0.0001$) were observed in terms of uniformity of questions asked, stress, time allotment, topic coverage etc. Faculty also expressed that structured oral examinations are better in terms of reducing bias, minimising luck factor and uniformity of questions.

Keywords: Community Medicine, Structured Oral Viva, Undergraduate

1. Introduction

The oral or viva method of assessment was defined by Joughin as "assessment in which a student's response to the assessment task is verbal, in the sense of being expressed or conveyed by speech instead of writing"¹. Traditional Viva/ Viva voce is very old and common

assessment method for testing cognitive as well as higher cognitive domain of student about the subject². Oral examination remains favourite of examiner because of high face validity, free hand to examiner about number of question to be asked, flexibility of question and many more. Many authors reported poor validity and reliability for oral examination because of unequal time distribution

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to student for viva, gender bias, non uniformity of difficult questionnaire, full syllabus is not covered, examiner's mood, high anxiety in students, student's communication skill and so on^{3,4}. Nevertheless, it has also been established that the viva session if carried out in appropriate manner, it is an effective tool of assessment that can measure the candidate's knowledge, clinical skills, and attitude and communication skills at the same time. This is why most of the summative assessments do have viva voce as an essential component of their examination. To minimize various biases and to make it more standardized and uniform, present study was conducted to introduce structured oral examination as an assessment tool for third year MBBS undergraduates in community Medicine and evaluating the process by taking student's as well as faculty's feedback.

2. Material and Methods

Present study was carried out in department of community medicine, Dr. Vasant Rao Pawar Medical college, Hospital & Research centre, Nashik. Permission from Dean as well as head of department was taken. A batch of 26 students was randomly selected and enrolled in to study after informed consent. Four faculty members were also randomly divided in two groups. Faculty members

in structured oral examination group were sensitized and trained about SOE. Faculty members with their general consensus prepared standardized questionnaire depending on syllabus and importance of topic. Questions were arranged in ascending order as per grade of difficulty. Probable answers with approximate marks also predefined and checklist was prepared. Each student has undergone same set of questionnaire consisting of theoretical and applied questions. All the students were simultaneously assessed with traditional and structured oral examination without intermixing among other group. Feedback in the form of questionnaire as per Likert's scale was collected for both type of viva and from students as well as faculty. Appropriate statistical analysis was done.

3. Results

Statistical analysis of the feedback questionnaire was done applying t test. Each questionnaire was assigned a numerical value on Likert's scale, Mean & standard deviation was calculated. Statistical difference between mean score was compared for both the viva (Table 1, 2).

Questionnaire analysis depicted that students were overall satisfied with the structured oral examination and felt it better than the traditional viva. Statistically significant differences ($p = 0.0001$) were observed in terms

Table 1. Some feedback from students regarding both type of examinations

Sr.No	Response	Percentage of students
1	Experienced stress during Traditional Oral viva examination	58%
2.	Experienced stress during Structured oral examination	23%
3.	Disagrees that Traditional Oral viva is comprehensive & covers all topics while	42%
4.	Agrees that Structured oral examination is comprehensive & covers all topics.	81 %
5.	Agrees that Examiner's mood affects their performance during Traditional Oral viva	85%
6.	Agrees that Examiner focuses too much on one topic of his interest during Traditional Oral viva.	62%
7.	Disagrees that Examiner focuses too much on one topic of his interest during Structured oral examination	88%
8.	Strongly agrees that Traditional Oral viva progresses haphazardly	50%
9.	Disagrees that Structured oral examination progresses haphazardly	77%
10.	Strongly agrees that in Structured oral examination pattern of examination was uniform	70%
11.	Agrees that Structured oral examination reduces various bias	88%

Table 2. Statistical analysis of feedback questionnaire

Sr.no	Question	Traditional viva Score Mean \pm SD	SOE Score Mean \pm SD	p value
1	Uniformity of Examination	2.77 \pm 1.17	4.65 \pm 0.56	<0.0001
2.	Stress during Examination	3.46 \pm 0.90	2.73 \pm 1.11	0.012
3.	Approach of Examiner	3.58 \pm 0.64	4.35 \pm 0.74	<0.0001
4.	Time allotment	3.69 \pm 0.78	4.15 \pm 0.54	0.017
5.	Syllabus coverage	2.85 \pm 1.08	3.92 \pm 0.84	<0.0001
6.	Examiner's focus on topic of his choice	3.58 \pm 1.23	2.15 \pm 0.92	<0.0001
7.	Examination proceeds haphazardly	3.46 \pm 1.17	2.00 \pm 0.80	<0.0001
8.	Overall satisfaction	2.92 \pm 0.79	4.15 \pm 0.78	<0.0001

of uniformity of questions asked, stress, time allotment, topic coverage etc. between these two assessment methods. Faculty members also expressed that structured oral examinations are better in terms of reducing bias, minimizing luck factor and uniformity of questions which makes SOE a fair assessment tool.

4. Discussion

As we have discussed earlier oral examination is an important assessment Method which enables examiner to assess student in almost all fields of cognitive domains⁵. Most of authors questioned about reliability and validity of oral viva as it incorporates so many biases. Few authors like Sharmila Torke et al.⁶ also shown reasonable reliability can be achieved with structured standardized orals using handpicked examiners. Another study done in Indian set up in Anatomy showed students favoured structured oral examination over traditional viva as it minimizes most of the biases⁷.

In our study 70% students strongly agreed that Structured oral Examination (SOE) is uniform in pattern similar findings were noted by Shenwal et al.⁸ (53%). Eighty one percent students felt that Structured oral Examination (SOE) was comprehensive hence covers all topics which is in accordance with Shah H.K et al.⁹ where 84 % students felt so. Almost 88% students agreed that Structured Oral Examination (SOE) reduces most of the biases, Shah H.K et al.⁹ replicates similar findings (75%). In our study proportion of students experienced stress during Structured oral Examination (SOE) was mere 23% which is significantly less compared to stress during traditional oral viva (58%) this is in accordance with Shenwal et al.⁸ where 37% of students strongly agreed that they felt anxious/depressed about

questions. Eighty five percent of students felt that examiner's mood may affect their performance in our study, this is almost similar to findings given by Shah H.K et al.⁹ (75%).

Shah H.K et al.⁹ also reported 54% students felt examiner focuses too much on one topic especially of their own interest, we found 62% students echoing same statement.

In Maharashtra University of Health sciences we are still following old traditional oral viva as an assessment tool even though MCI task force in its recommendation to emphasize MBBS curriculum stated need for introducing structured viva voce examination for all subjects so as to have objectivity in the evaluation process.

Structured Oral Examination (SOE) in contrary will require more effort from faculty side also to make standardize question bank as well as blueprinting of syllabus is must before preparing sets of SOE. Students should not be intermixed to prevent leakage of questions as set of question remains same for that particular batch. In our study faculty also felt too mechanical to ask same questions repeatedly but looking at benefits of Structured Oral Examination (SOE) it is an excellent tool to reduce biases which comes in traditional oral viva¹⁰.

5. Conclusion

Structured oral examination can be a better assessment tool and with some modifications in blueprinting it will be acceptable to the students as well as faculty.

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