

ORIGINAL ARTICLE

Perception of MBBS Students About Structured Versus Traditional Viva Examination Formats

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ABSTRACT

Objective: To explore the perception and views of undergraduate medical students about the significance of structured versus traditional viva formats.

Study Design: It was qualitative exploratory research

Place and Duration of Study: The study was conducted in Pathology department of CMH Multan Institute of Medical Sciences from December 2019 to August 2020.

Materials and Methods: Four sets of focused group discussions were carried out, each group comprising of 8 students of fourth year MBBS who had undertaken both structured and traditional viva examinations in the subject of Pathology. The students who did not appear in the exam and those who did not volunteer for the study were excluded from the study. The interviews were audio recorded followed by transcription and manual thematic analysis. The students identified their preferences for the type of viva which gave an umbrella of themes. The subthemes were then identified to find out the exact reasons of their preferences.

Results: The results of the study yielded five themes and sub themes. The main themes were attitude towards exams, exams preparation, time management, student teacher relationship and relevancy of content of viva. The students suggested that viva exam of all subjects should be structured to maximize uniformity of content coverage, time management and attitude improvement for both faculty and students.

Conclusion: The students were Overwhelmingly satisfied with structured viva as compared to traditional viva format. They emphasized structured viva as their preferred assessment method as traditional viva does not truly reflect a student's competence.

Key Words: *Assessment Methods, Perception, Structured, Students, Traditional Viva.*

Introduction

The rapidly evolving medical education system has made the assessment of medical students a challenging task. There have been a number of ways by which students can be assessed but viva voce has always been an integral part of students' evaluation^{1,2}. Traditional viva voce has long been used as a summative assessment tool³. Though it has some potential strengths like greater compliance and flexibility both on part of students and teachers⁴, this method also has some serious flaws in it⁵. It is

more teacher centered, time consuming, variable, examiner biased, difficult, not interactive, with tense atmosphere during exam.⁶ All these demerits make both the validity and reliability of this method questionable^{7,8}. In order to overcome these difficulties a much reliable approach was much needed and it was provided by structured viva format. It has been introduced in various medical universities globally^{9,10,11}. This modified format helps in eliminating many flaws including the element of bias and gives an equal and fair chance to every student.

A lot of research has been done and methods of structured exam devised. Students desire the needed change in assessment methods. Hashim R et al. confirmed in their study that 98% of their students were satisfied with the structured viva format⁹. Though many quantitative and some qualitative data endorse the efficacy of structured format but literature review shows very little work done in this area ethnographically. Ethnographic research is one of the best and unique ways to explain students'

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perception about viva examination whereby the researcher documents the culture, perspectives and practices of people in a particular setting^{12,13,14}. Detailed informal or conversational interviews allow to probe their issues in a more naturalistic manner. A more recent form of ethnography, the Focused Ethnography (FE), investigates a specific issue among small groups of people instead of whole communities, for example, students of a medical college¹⁵. Because, the scope of FE is narrow, the researcher generally has better and more knowledge about the topic under study and does not need immersion in cultural practices and engagement in long-term fieldwork. Thus, FE is more feasible for busy medical educators who are curious and want to explore outcomes in their own setting^{16,17,18}. With this background knowledge, we decided to carry out a qualitative research project in Pathology department of CMH Institute of Medical Sciences Multan. We wanted to explore what our students feel about the viva examination systems being followed in our setting and convince our faculty that our students are aware and desirous of a much-needed change in that system. Our students volunteered to both structured and traditional viva formats followed by recording their perceptions and views about the two formats via focused group interviews.

Materials and Methods

This qualitative, focused ethnographic study was conducted from December 2019 to August 2020 at CMH Multan Institute of Medical Sciences, Multan, Pakistan. After taking approval from institutional ethics review board the sample was collected using purposive sampling technique from among fourth year medical students who had undertaken their viva voce in the department of Pathology at CIMS Multan at the end of second modular examination. Those students who did not appear in the exam and those who did not volunteer were excluded from the study. There were 100 students, who were divided into four batches of 25 students each. Viva was conducted on 4 consecutive days. Each student had to take both structured and traditional viva examinations by two separate examiners. The students were briefed about the new viva format beforehand. For structured viva, questions with keys were prepared mutually agreed by all the faculty members

with increasing difficulty level as per the Bloom's taxonomy of educational objectives of cognitive domain, i.e, easy, moderate and hard. Each student was given an equal time. There were four pools of questions, one pool of ten questions to be used each day with equal marks distribution for each batch (Table I).

Table I: AN EXAMPLE OF A POOL OF 10 QUESTIONS FOR STRUCTURED VIVA (TOTAL MARKS:10; TIME:10 min)

QUESTIONS	DIFFICULTY LEVEL	COGNITIVE LEVEL	MARKS
Q1. What is anthracosis?	Easy	Recall	1
Q2. What is an atheromatous plaque composed of?	Easy	Recall	1
Q3. Define Barrett esophagus.	Easy	Recall	1
Q4. Define cirrhosis.	Easy	Recall	1
Q5. What are pathological complications of atherosclerosis?	Moderate	Explanation/Reasoning	1
Q6. How can you differentiate between bacterial and viral pneumonias on lung biopsy?	Moderate	Explanation/Reasoning	1
Q7. Which serum markers are used to assess hepatocyte integrity?	Moderate	Explanation/Reasoning	1
Q8. What is the importance of ANCAs in the diagnosis of vasculitis?	Difficult	Correlation/Analysis	1
Q9. Explain the role of spleen in pneumonias.	Difficult	Correlation/Analysis	1
Q10. Give the differential diagnosis of villous atrophy in small intestine.	Difficult	Correlation/Analysis	1

The traditional viva examination was conducted conventionally with examiner asking 10 random but relevant questions and with the same time limit. Maximum 10 marks were awarded to this part of exam too.

In order to control bias it was assured that the viva questions for the structured examination prepared were kept in complete secrecy; only the examiner knew about those at the time of the exam. The students who had taken the structured viva were kept separate from rest of the examinees with strict compliance to exam protocols. Everyday a separate pool of questions was used. Same couple of examiners conducted the viva on all the four days to remove teacher-teacher bias.

After taking informed consent the focused group interviews were taken at the end of viva each day from those students who volunteered. Each group interview lasted for about 60minutes. The questions used for focused group interview were finalized after being validated by experts in the field of medical education. The opinions of the students were both audio recorded as well as noted down by the moderator. The audio recordings were later transcribed verbatim. Thematic analysis was conducted. In the first stage day wise coding was done which produced four sets of codes (D1-D4). Every individual in a group was further given a lettered code from A to H. In the second stage these codes were arranged and then evaluated into themes and subthemes.

Results

Of the hundred students , four groups of students (32%), each comprised of 8 students, volunteered for focused group interviews. Results of the study revealed five major themes and subthemes after consensus of the researchers. (Table II).

The first theme was “Attitude towards exams”. Most of the students felt that during traditional viva there was generally an aura of fear and anxiety. Viva is a test of communication skills and not everyone is good at it. Many students could not answer because of anxiety or shyness despite of knowing the answer. Their self-confidence was boosted with structured viva format. According to one student, “I've never felt so confident in any viva examination before. Structured viva is far better way to express myself. It was just like a quiz show where I was answering and scoring.” (D1-F). In traditional viva students felt the examiner's bias when he changed difficulty level of question from easy to hard for some students and vice versa, “I think I had a better connection with my examiner taking structured viva. I didn't feel nervous.

Table II: Medical Students' Perception About Traditional and Structured Viva Examinations

Theme	Sub-Theme	Students' Remarks
Attitude towards Exams	Boosting the confidence of students	“I've never felt so confident in any viva examination before. Structured viva is far better way to express myself. It was just like a quiz show where I was answering and scoring.” (D1-F). “I think I had a better connection with my examiner taking structured viva. I didn't feel nervous. But in traditional viva it was not the same. We never bonded.” (D4- B)
	Reduction in anxiety & fear	
Exam Preparation	Uniform coverage of syllabus	“It will really help in final exam preparation as it covers all the aspects of the syllabus. There was no drifting sideways. I think structured viva should be the preferred method for our assessment.” (D2-H)
Time Management	Equal time management by students	“Previously my viva used to linger for as long as half an hour. It was a relief that this exam finished in time. Since it was time bound so it will also help me in time management in my final exams.” (D3-C).
	Equal time distribution by faculty	
Student-teacher Relationship	Gender bias	“I felt that the examiner disapproved of me irrespective of what answers I gave during traditional viva examination. It was a prolonged exam which I wished to end early. However, during structured viva there was no such feeling.”(D2- C) “I'm sure that my colleague was given extra attention. It happened during traditional viva when the examiner didn't have any pool of questions to ask from and he simply was asking his favorite questions from only some students” (D3-A)
	Favoritism	

But in traditional viva it was not the same. We never bonded. I wasn't given a chance." (D4- B)

The second theme was "Exam preparation". Although uniform coverage of every topic in a large group is an uphill task. However, the results of our study showed that majority of the students were satisfied with the structured viva exam. All the question asked were sufficient to cover the relevant topic and the required learning outcomes were met. One of the students said "It will really help in final exam preparation as it covers all the aspects of the syllabus. There was no drifting sideways. I think structured viva should be the preferred method for our assessment." (D2-H). This was not the case with the traditional viva. The examiner usually stuck with one or two questions of his choice.

The third theme was "equal distribution of time". Students felt that time distribution was more uniform during structured viva than traditional viva though overall duration of both exams was same. In traditional viva the time was lost more on some questions than others. "Previously my viva used to linger for as long as half an hour. It was a relief that this exam finished in time. Since it was time bound so it will also help me in time management in my final exams" (D3-C).

The fourth theme that emerged was " Student-teacher relationship". Examiner's approach to present difficult questions to different students might have shown bias. Most of the students felt that gender bias was not felt at all during structured viva but during traditional viva some of them experienced it. One of the students who experienced gender bias during traditional viva mentioned that in a reserved manner, "I felt that the examiner disapproved of me irrespective of what answers I gave during traditional viva examination. It was a prolonged exam which I wished to end early. However, during structured viva there was no such feeling." (D2- C). Another student was very much unhappy of the favoritism shown by the examiner, "I'm sure that my colleague was given extra attention. It happened during traditional viva when the examiner didn't have any pool of questions to ask from and he simply was asking his favorite questions from only some students" (D3-A)

The final theme was "relevance of content of viva questions". For structured viva examination, most of

the students believed the questions were relevant, focused and according to their syllabus and content. However, for traditional viva some students complained that they were asked out of syllabus questions as their viva was drifted sideways. "I think structured viva was more relevant than traditional viva as it covered the important topics without wasting time on unnecessary details." (D4- G)

Discussion

Our study is unique as no one has used a focused ethnographic technique to take into account students' views about both traditional and structured viva examination formats. Majority of students favored the structured format of viva while highlighting the issues of traditional format.

Traditional viva examination system has now been obsolete in many parts of the world because of its high degree of subjectivity, bias and poor validity.^{19,20}

Such imperfections can be eliminated by the use of structured viva format. Structuring can be challenging, as it requires a large Q bank with valid keys, frequent updates, difficulty levels according to Miller's pyramid must be ensured, and it all requires a dedicated faculty, space and time.^{20,21} Majority of the studies conducted now reveal that both students and faculty believe that structured viva owns a satisfactory level in terms of the efficacy of assessment^{22,23}.

The main objective of our study was to determine the perceptions and views of our undergraduate students about structured versus traditional viva formats. About 99% of our students expressed that the questions asked in structured viva were relevant, syllabus was uniformly covered, and it helped in equal time management. Dangre-Mudey G et al. also confirmed similar findings in their study where 52% of their students agreed on uniformity of covered syllabus and 56% students agreed on equal time distribution among students in structured viva.

Most of our students (almost 98%) believed that examiner in structured viva was more friendly, unbiased and did not ask repetitive questions, however, during traditional viva the examiner was usually moody, focused on some topics and students. Such findings are mirrored by another study conducted by Shah HK et al. where 75% of the students favored structured viva for the same reasons.

The medical education research has been moving towards a more interpretivist approach and focused ethnography has provided a more pragmatic way to execute this^{17,18}. We used focused group interviews as a tool to indulge into the social culture of our medical students, in order to comprehend and realize the real time issues that our students might be facing while dealing with professional studies and high-stakes examinations. Shadab et al.²² conducted a similar qualitative study in a clinical setting which showed comparable results as ours. Medical educationists have been working hard on making the assessment methods more objective with promising results^{23,24}. Our study highlighted the inherent issues in the traditional viva examination. Structured viva is a good way to improve student-teacher relationship, boosting students' confidence, enhancing their communication skills, higher cognitive functions and application of knowledge²⁵. It also helps students identify their weak areas. In future they can work on their shortcomings and work harder to achieve better.

The main limitation of the current study is that it was carried out on the students of just one medical college. Also, it could not involve students of other classes due to time constraints.

Future studies should include ethnographic research models being applied on students of other classes as well as other medical colleges to improve its validity and reliability further. Future studies should also be conducted on the use of structured assessment methods in clinical examinations too.

Conclusion

From this study it was concluded that our students were overwhelmingly satisfied with structured viva as compared to traditional viva format. They emphasized structured viva as their preferred assessment method as traditional viva does not truly reflect a student's competence. They believed that in the form of structured exam, they found a better approach to boost their confidence, overcome the fear of traditional viva exam, uniformly cover the syllabus, and get better at applying knowledge to deal with specific problems in future clinical practice.

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CONFLICT OF INTEREST

Authors declared no conflicts of Interest.

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DATA SHARING STATEMENT

The data that support the findings of this study are available from the corresponding author upon request.

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