

## Impact of COVID – 19 on practical examination for final year MBBS students in General Medicine

Rikita Ramesh Mudhol\*, Mohan D. Kashinkunti and Shubashree Mishra

Department of General Medicine, SDM College of Medical Sciences & Hospital, Shri Dharmasthala Manjunatheshwara University, Sattur, Dharwad-580009, Karnataka, India

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**Abstract:** *Background:* The COVID -19 pandemic has disturbed the medical education. The pandemic has also made it difficult to assess and conduct examination for the medical students at the end of their academic year. *Objective:* This study was done to know the impact of COVID – 19 on the changed practical examination pattern. *Materials and Methods:* This is an observational study which included 100 MBBS students who appeared for final examination in April 2021 in the subject of General Medicine. A pre-validated questionnaire was given to the students which included multiple choice and dichotomous type of questions. The responses were analysed by descriptive statistics. *Results:* In our study most of the respondents (62%) were of the opinion that the exam conducted was similar to final exam, (34%) felt the exam was conducted in a bettered way and (4%) found it tough. While 95% of the students were of the opinion that they were satisfied with the case scenarios covering all systems and felt that questions asked in the practical examination were relevant. Most of the students (99%) thought that elicitation of clinical signs was better in a case presentation as compared to case scenarios. However 78% students agreed that the Viva – voce was conducted in a bettered way and 22% students disagreed. While 99% of the students agreed that the examination was conducted in the stipulated time. However 93% students preferred clinical case presentation over case scenarios. *Conclusion:* The COVID-19 pandemic has enabled us to implement new methods of conducting examination. The outcome of present study could help in conducting case scenario - based practical examination for MBBS students in a better way.

**Keywords:** COVID -19 Pandemic, Medicine Practical Examination, Students.

### Introduction

The COVID-19 pandemic has disturbed all the education-related activities, which includes even the conduct of examinations and medical education. The pandemic has been very difficult and posed hard on the whole mankind [1].

World Health Organization on March 11, 2020 declared COVID-19 as a pandemic [2]. The Government of India also implemented a complete lockdown in the whole of the country from March 2020 [3]. The educational institutions had to close the schools and colleges, it included the Medical Colleges as well. The students, parents and also the faculty members of the Medical College accepted this decision and praised it, but the education of the students is at stake. The teaching and examination for the students is under a bleak future [4]. Many

medical colleges have developed virtual classes to continue medical education until students returned to hospitals for clinical postings. However, due to lack of in-person clinical exposure is challenge to medical students, as well as concern about how their examination will be conducted [5]. The National Medical Commission (NMC) has issued a recommendation to all the medical colleges about the conduct of MBBS examinations. Through this recent notice, the apex medical regulator has advised all medical colleges and universities to abide by the existing rules to conduct the final Bachelor of Medicine and Bachelor of surgery (MBBS) examination [6]. Conducting the practical examination is very challenging due to social distancing. Hence we have introduced new method of examination which includes case scenarios.

Our objective of the study is to know the impact of COVID - 19 on the changed practical examination pattern.

**Material and Methods**

This is an observational study. The study included 100 MBBS students who appeared for final examination in April 2021 in the subject of General Medicine. No students were excluded. The design of the study was explained to the participants and informed consent was obtained. A pre-validated questionnaire was given to the students. It included multiple choice and dichotomous type of questions. The questions were grouped into overall experience of case scenarios. The Ethical clearance was taken from the Institutional Ethical committee.

The practical examination for final year MBBS students in General Medicine was conducted under two sections. The first section had case scenarios that were given to the students. Each student was given one long case scenario and two short case scenarios. The second section of the practical examination consisted of Viva – voce, where in students were evaluated by asking questions on drugs, instruments, x-rays, electrocardiogram (ECG), charts and Emergency medicine. The responses are collected and analysed by descriptive statistics.

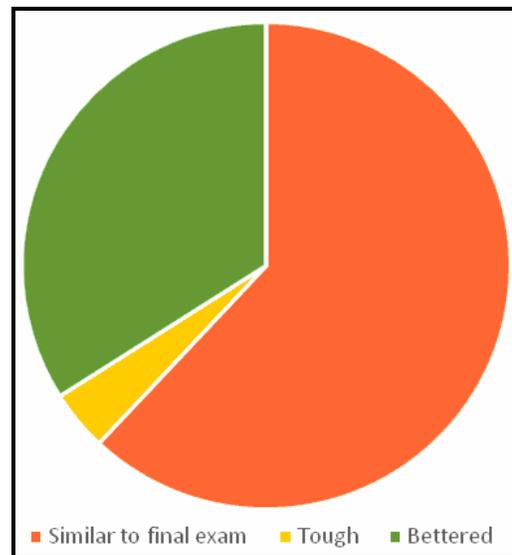
**Results**

In this study when the questionnaire was analysed, 62% of the students were of the opinion that the exam conducted was similar to final exam, 34% students felt that the exam was conducted in a better way and 4% of the students found it tough [Graph 1].

The students were asked about their opinion on case scenarios which was introduced in this year General Medicine final MBBS practical examination, 95% of the students were of the opinion that they were satisfied with the case scenarios covering all systems. Ninety five percent of the students said that the questions asked in the practical examination were relevant to the case scenarios given to them. In his study 80% of the students did not find any lacunae regarding history in case scenario, while 20% of the students felt there was a lacunae.

Our study also showed that 99% of the MBBS students thought that elicitation of clinical signs was better in a case presentation as compared to case scenarios [Table 1].

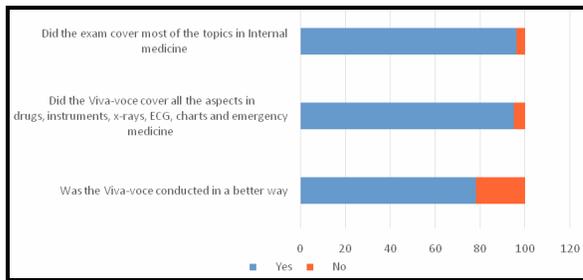
**Graph-1:** Shows the opinion of students on how the examination was conducted



| Question  | Yes n(%) | No n(%) |
|---|----------|---------|
| Were you satisfied with case scenarios covering all systems   | 95       | 5       |
| Were the questions asked relevant to the scenarios  | 95       | 5       |
| Was there a lacunae in case scenario regarding history  | 20       | 80      |
| Do you feel elicitation of clinical signs was better with bed side evaluation as compared to case scenarios | 99       | 1       |

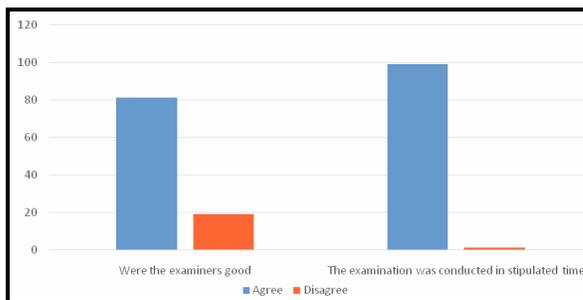
The students were asked about their opinion on Viva-voce, 96% of the students felt that the practical examination covered most of the topics in Internal Medicine. Ninety five percent of the students were of the opinion that Viva – voce covered all the aspects in drugs, instruments, x-rays, ECG, charts and Emergency medicine. When the students were asked if the Viva – voce was conducted in a better way, 78% said yes and 22% students responded as no [Graph 2].

**Graph-2:** Shows the opinion of students on Viva – voce



When the students were asked about the opinion on examiners, 81% of the students agreed that the examiners were good and 99% of the students agreed that the examination was conducted in the stipulated time [Graph 3].

**Graph-3:** Shows the students opinion about examiner



When the students were asked the way to overcome lacunae in the present examination, 91% said by doing clinical examination on a patient and the rest 8% students preferred objective structured clinical examination (OSCE) stations with mannequins. The students were asked if they preferred clinical case presentation over the case scenarios, 93% students agreed to it.

The students when asked if there was scope for improvement in examination conducted, 55% students responded as not required and 45% students said yes. Forty seven percent of the students said Viva – voce needs improvement, 30% students said case scenarios need improvement whereas 23% said both Viva – voce and case scenarios need improvement in conducting the examination.

### Discussion

The COVID-19 pandemic came suddenly and the pandemic has not ended yet. This has forced the educational institutions to change the way of teaching and conducting examination, from

conventional method to modified ways which included case scenarios, virtual or online mode. These methods were adopted in the process of maintaining social distancing and safety of the students and faculty members. In the present study done on the impact of COVID-19 on the practical examination in the subject of General Medicine for final year MBBS students in India, gives their opinion on case scenarios, Viva-voce, about how the examination was conducted and scope for improvement.

There is a survey done by Malhotra et al [7] in which they report good response in their orthopaedic post graduate final practical examination held during COVID- 19 pandemic. They maintained social distancing and gave case scenarios, x-rays and clinical pictures to assess the post graduates. The post graduates as well as the faculty were satisfied with modified pattern of practical examination. In another study done by Samarasekera et al, did a study on clinical examination for final year medical university undergraduate students. The students were given case scenarios instead of patients and they maintained social distancing [8]. The students were physically present at the examination venue so that there was surety of equal provision of facility and environment to the students while attending the practical examination [1].

In our study majority of the students were of the opinion that the examination conducted was similar to final examination and was conducted in a better way. Majority of the students were satisfied with the case scenarios covering all systems in the subject of General Medicine. Many students felt that the questions asked in the practical examination were relevant to the case scenarios and did not find any lacunae. Almost all the students agreed that elicitation of clinical signs was better in a case presentation as compared to case scenarios. Many students said that Viva – voce covered most of the topics in General Medicine. The students were of the opinion that the examiners conducting the examination were good and almost all the students said that the examination was conducted in the stipulated time.

Most of the students were of the opinion that clinical examination on the patient would overcome the lacunae of the present way of examination and very few students preferred OSCE stations with mannequins. Few students felt the need of improvement in Viva – voce, another few thought case scenarios need improvement and the rest few felt that both Viva – voce and case scenarios need improvement. Although the examination carried out by our department is successful in assessing the knowledge of the students but it may have lacked in assessing the clinical skills to be demonstrated on the patients and patient communication [7].

There is lack of standardization in the conventional method of examination. Where as in this new method of conducting examination in a

pandemic with case scenarios, it can bring standardization and help the institutions in better assessment and teaching.

### Conclusion

This study will help in knowing the new methods developed in conducting examination in a pandemic. These new methods could break the conventional way of education and help the institutions in a unique way of teaching and assessment. The outcome of our study could guide the better conduct of online/ case scenario - based practical examination for MBBS students. This can lead to improvement in medical education in the future, particularly in terms of delivery of assessment, which is obligatory.

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\*All correspondences to: Dr. Rikita Ramesh Mudhol, Assistant Professor, Department of General Medicine, SDM College of Medical Sciences & Hospital, Shri Dharmasthala Manjunatheshwara University, Sattur, Dharwad-580009, Karnataka, India.  
E- mail: rikita.mudhol@gmail.com