

OBJECTIVE STRUCTURED PRACTICAL EXAMINATION (OSPE), AS A TOOL FOR THE ASSESSMENT OF PRACTICAL SKILLS OF UNDERGRADUATE M.B.B.S STUDENTS

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ABSTRACT

INTRODUCTION:

Skills based learning is a part and parcel of medical education. OSPE is a tool used widely in the assessment of medical students' practical skills. This study is designed to analyze the response of medical students' on OSPE. This is a small effort to evaluate the feasibility of using OSPE as an assessment tool in undergraduate medical students.

MATERIALS AND METHODS:

A close ended questionnaire was distributed to 50 second year MBBS students to assess students' evaluation of the OSPE.

RESULTS:

According to this study OSPE has been accepted as a fair mode of assessment by 66% of students and 60% of them declared it a reliable and effective tool. Almost 78% students were stress free during OSPE as compared to viva and 94% felt the need of more time requirement at each station. About 88% students felt that this format helps them to identify their weak areas and 80% gained confidence over the subject. To summarize, students declared OSPE an effective and useful tool of assessment and gave us a constructive feedback which will be helpful for further improvement and standardization in future.

CONCLUSION:

Use of OSPE is reliable and feasible for formative as well as summative assessment in the undergraduate medical students.

KEY WORDS: OSPE, Tool of assessment, Formative and Summative assessment.

INTRODUCTION:

Assessment at regular intervals is a part and parcel of medical education. It not only improves the learning habits in medical students but also enhances the competence level for further studies. To achieve this goal, along with knowledge based tests, skill based assessments are of equal importance.¹ It is a well known fact that assessment drives student's attention towards learning. A single mode of examination cannot fulfill the entire purpose of assessment, such as assessing skills, knowledge, comprehension, motivation

and feedback. Since long continuous attempts are being made to design assessments pattern more objective rather than subjective.²

Objective Structured Practical Examination (OSPE) is a multipurpose evaluation tool that can be used for assessing the medical students during the pre and para-clinical

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years.¹ The OSPE is derived from Objective Structured Clinical Evaluation (OSCE) by Harden et al., in 1975 in clinical subjects, which was later on modified as OSPE for pre-clinical skills.³

During OSPE, the students are rotated through different pre-defined response stations. On every station students are asked to answer the given short objective type question or identify the given objects/instrument or interpret given data, etc within a specified pre defined time.⁴ According to researchers It is a multipurpose versatile evaluation tool considered to meet the shortcomings of conventional system of practical examination.^{2,4}

A good assessment tool is that which is reliable, feasible and acceptable to those who are using it.⁵ Previous studies have proved OSPE a very reliable device that is widely used to assess the practical skills of medical students.^{6,7} It not only tests the mental attendance of students but also their attitude towards learning during practical skills classes.⁸

In the preceding few years, the importance of student's feedback regarding the assessment methods in medical studies has been increasingly recognized by the researchers.⁹⁻¹¹ It has been considered a significant parameter towards more effective and interactive teaching and also provides us motivation towards further improvement.¹² Therefore; we conducted this study which was aimed to evaluate undergraduate medical students' perceptions regarding OSPE.

A majority of students (82%) believed that the OSPE helped them to understand practical skills more effectively and will stimulate their learning habit in future. The majority of students (92%) viewed that OSPE is a well-organized method of assessment. Regarding the exams stress, 78% of the students felt OSPE less stressful than viva. 92% students declared that the exam was well structure and easy to understand.

DISCUSSION:

OSPE is considered a standard tool for assessing pre-clinical practical skills. It not only improves the quality of student's performance in practical classes but also helps

them for their clinical practices so that good clinicians can be produced in future.⁷

In our study students gave their feedback about OSPE as an examination tool by responding to a pre defined questionnaire given to them. The 100% response rate of students showed that the results presented are reliable, valid and indicate the strength of students' opinion. They also revealed the needs for more improvement in OSPE. In general terms, students' gave a positive feedback regarding its wide coverage of learning objectives. It also helped the students to identify their gaps in understanding the subject, and helped them to learn and practice all basic practical skills.¹

On the basis of student's positive response (66%) it is assumed that students considered OSPE as an unbiased and fair and assessment parameter. 82% of students viewed that OSPE covered their whole syllabus and 80% students gained confidence over their subjects after OSPE. 94% students were of the opinion that the instructions regarding the OSPE were clear and adequate to understand the format of OSPE. About 82% students responded that this methodology helped them in their learning process to acquire better practical skills and has stimulates their learning habit. These findings correlate with previous researchers, according to which OSPE was declared a useful, reliable, effective, and challenging mode of assessment by the students.¹

A regular practice of objective evaluation helps the students in scoring solid marks. According to a study conducted in King Faisal University of Saudi Arabia, a marked improvement in mean score was seen after regular practice of OSPE.⁸ In our study 88% students thought that OSPE helps identifying the areas of weakness and improves their learning and understanding of the subject.

The strength of study was that, the majority of the students (92%) were of the view that OSPE is a well-organized method of exam and they didn't faced any problem during conduction of examination. Regarding the stressful nature of the exam, 78% of the students were of the opinion that they were relatively relaxed during exam and OSPE is

less stressful than viva but still 22% students took it as a stressful sort of examination. In this study 94% students were of the opinion that time given at each station was not sufficient. In my view more effort is required on the part of faculty to design comprehensive questions to be answered by the students in given prescribed time easily. According to previous studies on different modes of examination, it was concluded that examiners variability significantly affects scoring of students.² In this study 60% of students took OSPE as a reliable method of examination, but 40% were either neutral or disagree with this point of view. In an Indian study majority of the students considered OSPE as an effective, useful and reliable device to discriminate between different categories of students.⁸

CONCLUSION:

OSPE is considered a very helpful, convenient and acceptable mode of assessment for evaluating practical skills in our institution. It is reliable for both formative and summative assessments for medical students. It will not only enhance their learning habits but will also improve their performance in practical skills to become good clinicians in future. However students' participation on wider scale in the evaluation of this assessment tool is essential for further improvement.

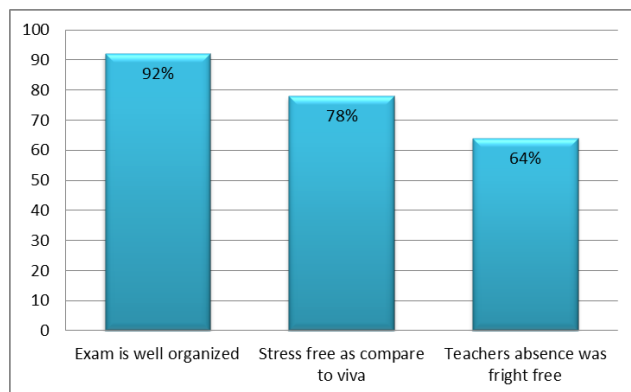


Fig.1: Percentage of Students in agreement about conductance of OSPE.

This study was limited due to its small sample size, therefore by increasing sample size and by including the students of different pre-clinical years it can be further investigated on broader scale. Moreover, a more extended questionnaire by using Likert scale can be designed to get students' opinion more precisely.

RESULTS:

Total 50 questionnaires were filled by students with 100% response rate.

OSPE a fair and unbiased assessment tool was declared by 66% of the students. About 82% of them viewed that OSPE covered whole syllabus more effectively and 88% thought that OSPE helped them in identifying the weak areas of learning and 80% students gained confidence over their subject.

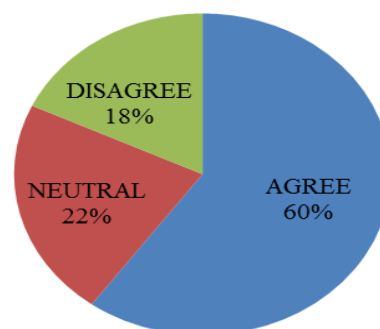


Fig.2: OSPE a reliable method of assessment: students perception

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I would like to thank all second year M.B.B.S students who spared their precious study time for participating in this study and for giving their valuable feedback.

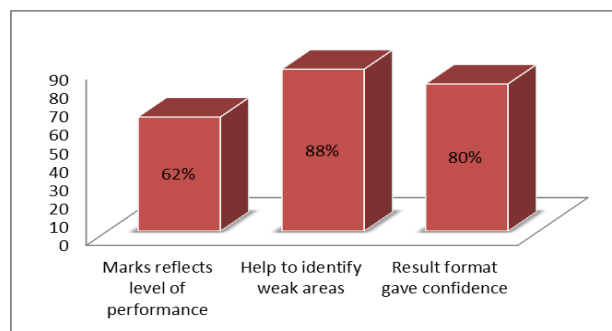


Fig.3: Student's opinion regarding evaluation of OSPE

A majority of students (82%) believed that the OSPE helped them to understand practical

organized method of assessment. Regarding the exams stress, 78% of the students felt OSPE less stressful than viva. 92% students

Table 1: Percentages of student's opinion about OSPE as a tool for assessment.

Sr. No	QUESTIONS	AGREE %	NEUTRAL %	DISAGREE %
	FORMAT OF EXAMINATION			
1	Instructions were adequate to understand format of OSPE	94	6	0
2	Examination was unfair and unbiased	66	22	12
3	Examination covered the syllabus	82	12	6
4	Examination was well structured and sequenced	92	6	2
	CONDUCT OF EXAMINATION			
5	Examination was well organized	92	6	2
6	Examination format was stress free as compare to viva	78	14	8
7	Teachers absence at stations was fright free	64	22	14
	EVALUATION OF EXAMINATION			
8	Instructions were adequate to understand format of OSPE	92	6	2
9	Is OSPE fair and reliable examination	60	22	18
10	You are satisfied that marks reflects your level of performance	62	20	18
11	Result format helped you to identify weak areas	88	12	0
12	Result format gave you confidence	80	8	12
13	Scoring was transparent and objective	62	26	10
14	Does this format helped you in further learning	82	12	6
	PROBLEMS & SOLUTIONS			
15	Needed more time at each stations	94	4	2
16	This experience has motivated to learn further	88	6	6
17	Help you to develop Gained over the subject	84	12	4

skills more effectively and will stimulate their learning habit in future. The majority of students (92%) viewed that OSPE is a well-

OBJECTIVE:

The objective of the study was to obtain the students' opinion regarding OSPE as a tool of assessment.

MATERIALS AND METHODS:

ETHICAL APPROVAL:

An ethical approval was obtained from Head of the Institute.

SETTING:

A cross sectional study was conducted by community medicine department in collaboration with physiology department at

declared that the exam was well structure and easy to understand.

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SUBJECTS:

The study was conducted through fifty second year MBBS students, volunteer to answer a specially designed questionnaire.

DATA COLLECTION:

A close ended questionnaire was developed which covered the questions about setting, conduction and evaluation of OSPE as an assessment toll.

Students were also inquired about problems and their solutions regarding OSPE. Questionnaires were distributed to 50

volunteer students and responses were collected.

STATISTICAL ANALYSIS:

The collected information from the 50 students entered into computer software SPSS (Statistical Package for Social sciences) version 18.0 and analyzed through it. All the data was collected on proformas. Frequencies and percentages were calculated for all variables.

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SR #	AUTHOR NAME	CONTRIBUTION
1	Dr. Farkhanda Jabeen	Principal investigator and overall supervision of project took part in interpretation of data
2	Dr. Sadaf Zia	Co-Investigator, helped in drafting the article & revising it critically
3	Dr. Sumera Riaz	Took part in completion, analysis & interpretation of data

