



## Introduction of OSPE (Objective Structured Practical Examination) Along with Traditional Practical Examination (TPE) For first MBBS Students

### KEYWORDS

OSPE + TPE , balanced assessment

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**ABSTRACT** A single method of assessment does not fulfill all the aspects of assessment. The present study was undertaken to have a balanced method of assessment which will reflect superior performance of students. First year MBBS students were assessed by traditional Practical Examination (TPE) and the same group was exposed to OSPE.

Mean score of group I was 10.93 "±" 2.703 SD and that of group II was 11.97 "±" 2.414 SD . Statistical analysis was done using unpaired T test (T=2.45). The difference between 2 groups was found NOT to be Statistically significant (P = 0.124 ) and t = -1.562 with 58 degree of freedom . 95% confidence interval for difference: -2.358 to 0.291

Conclusion- But in present study combined method did not proved to be statistically significant . Limitations may be due to smaller sample size. In future combined method with large sample size may be promising .

### INTRODUCTION

It is well known fact that assessment drives learning . A single method is unable to assess knowledge ,comprehension , skills , motivation and feedback (1,2,3) . A good test must be acceptable to those using it , feasible , valid and reliable (4).

OSPE is modified version of OSCE which has been used in clinical teaching since 1971 ( 5)and has been found to be reliable and valid assessment tool to test competency of students in clinical practice (6) . OSPE is a specialized sets of task for every student to be performed in the presence of examiners (7) with short duration of time . In the present study , first MBBS students were assessed by TPE and the same group was exposed to OSPE. Each method has some limitations which will be compensated by combining two methods to have balanced method of assessment .

### METHOD

A study was carried out on first year MBBS students of batch 2011 at Smt. Kashibai Navale Medical College & Hospital Pune, India at Anatomy Department. The portion for examination was inferior extremity. Sixty students were randomly selected grouped into 2 groups , each group containing thirty students . On day one – thirty students of group I were assessed by TPE. TPE was carried out by MUHS (Maharashtra University Of Health Sciences ) approved examiners. On day two – Group II (thirty ) students were exposed to OSPE + TPE . The examiners were also trained to carry out OSPE and they were given checklist to mark , which was pre- validated by MUHS approved examiners .At first group II students were explained the procedure of OSPE in detail . For OSPE total six stations were designed. Each station had two subparts. Time duration was varying from 3-5 minutes depending upon need of the station. Part I was performance station and students were required to perform these tasks ( for example , hold the bone in anatomical position, to do bone articulations for joint, draw capsular ligament for joint , demonstrate clinical tests etc) in the presence of examiners . Part II station was related to relevant theory questions . Part I station was composed of skills that students had to perform before the examiners and part II was composed of questions that tested student's knowledge, logic and analysis .

Data was expressed as mean SD and analyzed by unpaired T test .

### Result

**Table – comparison between performance of students**

Method	Mean ± SD	SEM	t value	P value
I (n= 30 )	10.93 2.703	0.4935	t = -1.562 with 58 degrees of freedom	P = 0.124
II (n = 30 )	11.97 2.414	0.4407		

**95% confidence interval for difference: -2.358 to 0.291**

Method I – TPE (n=30 ) Method II – TPE + OSPE(n=30 ) , In method I marks were given out of 20 and for method II marks were as TPE (20)+OSPE (20) =40 and were converted to 20 . Mean score for method I = 10.93 and that for method II = 11.97 Standard Deviation of method I was 2.703 and for method II was 2.414 Statically analysis was done using unpaired T test (T=2.45). The difference between 2 methods was found to be statistically Insignificant .

### DISCUSSION

Dismissal for incompetent performance during medical education is rare (8). Also in training evaluation widely used are unable to differentiate clearly among different dimensions of competence (9) or to distinguish clearly and reliably between different levels of performance particularly at or around a standard acceptable performance (10). The shortcomings of oral examinations and other highly prevalent assessment approaches have also been thoroughly documented (11). TPE has its own merits and demerits . It has subjectivity , chances of asking irrelevant questions, no uniformity for time . But important advantages are to judge interactive skills , assess depth of knowledge and it also provides flexibility to examiners.

OSPE is a good tool to avoid examiners bias , to bring objectivity in exam and for standardization of questions. Several studies have proved the OSCE as a reliable tool (12,13) . Previous studies have also reported OEPE is an effective tool in discriminating between good & poor performances in Physiology practical examination (7,14) . In a study conducted by Malik et al.(15) OSPE was rated by the students as reliable , effective, useful, interesting & challenging examination although it was considered taxing both mentally and physically. In a study conducted by Reem Abraham et al. OSPE was well accepted by the students as compared with TPE (16).

The limitation of OSPE were time consuming, observer fatigue limited range of marks for evaluation limited fixed questions judge interactive skills , no assesment of depth

of knowledge and it also does not provides flexibility to examiners.,. There are limited heads in anatomy that can be assessed by OSPE e.g. living anatomy on human subjects , limited part of osteology (holding bone in anatomical position , marking of joint capsule etc ) limited soft parts ( identify the pinned muscle , mention its nerve supply & action etc ). So as far as curriculum of anatomy is concerned all heads cannot be assessed by only OSPE .

Findings of our study are in agreement with the studies conducted by Malik SL et al and Reem Rachel Abraham et al (15,16 ) studies. However Reem Rachel Abraham et al (16 ) had compared TPE and OSPE . In our study we have combined TPE + OSPE combined. Results of our study will add to existing data in this regard.

### Conclusion

As each method of assessment has its own merits and demerits and by using combined the demerits of individual method of assessment will be minimized . But in present study combined method did not proved to be statistically significant . Limitations may be due to smaller sample size. In future combined method with large sample size may be promising .

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