

**Research Article****An Introduction of OSPE for Embryology to First MBBS Students in Anatomy Department****A. P. Gaikwad<sup>1\*</sup>, A.D. Patil<sup>2</sup>**<sup>1</sup>Associate professor, <sup>2</sup>Associate professor, Dept. of Anatomy, B. J. Govt. Medical College Pune.411001, India**\*Corresponding author**

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**Abstract:** In our department of Anatomy at Medical College a large part of practical examination is taken under different heads and students have to face at least 4 examiners at a time. Therefore students have to face different questions having different difficulty level, also the students complain that examiner's mood, chances of bias make them more anxious which affects the performance of the student. Hence to overcome these factors OSPE (objective structured practical examination) was introduced and conducted in the department so that all students would get an equal opportunity. The syllabus given was embryology of HNF region. 4 stations were designed. The aim of the study was to introduce OSPE for embryology to 1<sup>st</sup> MBBS students as an assessment method of the students and its acceptance as a method of assessment and learning tool by the faculties of the department. The entire faculties suggested for combination of OSPE and traditional practical examination.

**Keywords:** OSPE, assessment, embryology, traditional, examination, syllabus.

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**INTRODUCTION**

Almost 60% of the time allotted is for practical session. But the assessment does not test all the skills. A uniform and reliable practical evaluation of medical students is desirable. The examination should be objective, reliable conducting with proper time having knowledge of anatomy, acquisition of essential anatomical skills such as power of observation, identification and interpretational abilities for effective and safe clinical practice [1]. Anatomical knowledge can be assessed by written and practical examination. Though the old traditional method of practical examination does not test all the skill student variability, exam variability, also the exam being more comprehensive, objective and unbiased, OSPE can be designed to the 1<sup>st</sup> year MBBS students. The term OSPE is derived from Objective Structured Clinical Evaluation (OSCE) in 1975 which was later extended to practical examination & was modified by Harden and Gleeson. This method, with some modifications has stood the test of time & has largely overcome the problems of the conventional clinical examinations mentioned earlier. The objective structured practical examination is now an accepted tool in assessment of practical skills in both pre and para clinical subjects [2]. However, there is no strict guidelines on the types of scenario that are used in the OSPE examinations.

The practical examinations taken in Govt. Medical College, for 1<sup>st</sup> MBBS is by the traditional

method which includes the oral questions. The questions asked to the students is different for each, also the fear of the students to face the examiner, the variability of mood of the examiner, the variability of time given by the examiner to the student, affects the score of the student. The purpose of the introduction of OSPE was to introduce OSPE for assessment of Embryology to 1<sup>st</sup> MBBS students and to accept the method as assessment and learning tool by the faculties/staff of the department, which would overcome the above mentioned drawbacks.

**MATERIALS AND METHODS**

The study was conducted in the department of anatomy. 100 students and 12 Faculties/staff members were selected randomly for the study. The syllabus, Embryology of head, neck and face region was declared to the students one month prior to the study. They were explained about OSPE and how the method would be carried out. Permission from ethical committee was taken.

The faculties/staff of the department participating in the study were also explained and trained in OSPE. The student has to face four stations of embryology of which 2 were models, one chart and one specimen. At each station, two questions were asked which tested the higher level of thinking and time allotted was 4 minutes. After the examination, feedback was taken from the students and the Faculties/staff by

giving them a questionnaire, and the score was calculated in percentage. The feedback was evaluated and suggestions were asked regarding the method.

**RESULTS**

OSPE was carried out in the department of Anatomy. 100 students and 12 faculties participated in the study. Feedback was taken by giving questionnaire. Following tables show the response of the students and faculties.

**Table-1: Feedback of the students and faculties regarding OSPE method**

QUESTIONS ASKED	STUDENT RESPONSE (%)	FACULTIES RESPONSE (%)
Whether sufficient time was given to each station?	83	75
Were the questions clear?	94	91.6
Were the questions given objective?	46	66.6
Were the topics taught earlier?	91	83.3
Absence of examiner on student's performance?	76	58.3
Transparency in OSPE?	89	83
Equal opportunity provided by OSPE?	90	91.6
Biases in OSPE?	33	25
Level of comfort during OSPE?	93	71.3
Anxiety during OSPE	31	67
General impression about OSPE?	77	90
Preferable single method for total assessment?	78	0

Table 1, Shows that the students were clear about the method used. 76% of the students were of the opinion that absence of the examiner during examination increased student performance; this was supported by 58.3% of the faculties. OSPE was transparent (students- 89%, faculties- 83%) , provided equal opportunity (students- 90%, faculties 91.6%). 33% of the students opined that there are chances of

bias in OSPE supported by 25 % of the faculties. Both the student and faculties were comfortable with OSPE (93% & 83%). However 77% of students and 90% of faculties, had good impression about OSPE, when asked about preferable method, 78% were in favor of OSPE, 9% preferred traditional practical examination and 13% were unable to give their preference.

**Table-2: Feedback of the students and faculties regarding traditional practical method**

Sr. No	QUESTIONS ASKED	STUDENTS RESPONSE (%)	FACULTIES RESPONSE (%)
1	Effect of mood of the examiner	74	75
2	Biases in traditional practical method	56	33
3	Anxiety level during traditional practical method	78	NA
4	Comfort level	NA	71.3

Table 2 shows that, mood of the examiner affects students performance (students- 74%, faculties- 75%). A chance of bias is 56% responded by the students whereas 33% faculties responded for the same. 78% of students were more anxious while facing traditional method of practical examination, therefore, less comfortable during the traditional practical examination.

**DISCUSSION**

The method of OSPE was carried out in the department of anatomy with permission of higher authority and support of the faculties. In our study, 78%

of students preferred OSPE and 9% were in favor of traditional practical examination method, as they thought OSPE reduces the fear of the student facing the examiner and hence reduces anxiety and improves the performance of student.

OSPE has been tried in various medical subjects, Physiology Malik *et al.*; [3], Sandila *et al.*; [4], Abraham *et al.*; [5], Biochemistry Aarti Sood *et al.*; [6], Pathology by Firoz & Jacob [7].

The present study reveals that in OSPE, the chances of bias because of the mood of the examiner etc

are less as compared to traditional examination, also it is more transparent, and with less anxiety level makes the student more comfortable as compared to traditional practical examination. However, Hassan S [2], Malik S *et al.*; [3] reported the higher score of traditional practical examination as compared to OSPE indicates that structured nature of the newer evaluation system does not give any advantage to memory and luck.

In present study from table 1, when preference was asked as the single method of assessment, 9% students opted for traditional practical examination. The reason being, traditional practical examination covers maximum portion, students learn to face stress, they develop self-confidence, examiner gives hints to the students. OSPE being objective there is fear of losing marks. But, our faculties (100%), and 13% of the students opined that OSPE should be combined with traditional practical examination. The reason cited were OSPE as a single method is time consuming; more space is required and affects the performance of students because out of vast portion only few and selective questions are asked. Also Aarti Sood Mahajan *et al.*; is of the opinion that traditional method allows in-depth analysis of the subject with more interaction between the examiner and the student, also instant feedback is given to the students. It can supplement but not replace the conventional method. To replace, it would require an elaborate and structured OSPE bank.

Hence, Aarti Sood Mahajan *et al.*; [6], Hassan S [2], Malik S *et al.*; [3] and our present study are in favour of complimenting the traditional method of assessment with that of OSPE, while Yaqinuddin A *et al.*; [1] and Abraham *et al.*; [5] are suggesting OSPE instead of traditional method of assessment for the improvement of student. Suggestions were given by the students regarding the OSPE method that 5% suggested for likely questions to be declared prior to the examination, 3% suggested there should be at least one oral station, 1% student was of the opinion that hints should be given by the examiner.

Suggestions were also given by the faculties that OSPE should be base for under graduate and post graduate entrance examination and be introduced in the

department for internal assessment so that the students face the examiner without fear and anxiety and hence may not affect the performance of the students.

## CONCLUSION

Hence to conclude, our aim of introducing OSPE for assessment of Embryology and as the method of assessment to first MBBS students and also as learning tool is being accepted by the students and faculties. Though each of the method has its own pros and cons, our faculties and students suggested for the use of both OSPE and traditional practical examination should be there for better assessment of the students.

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