

## RESEARCH ARTICLE

### Objective structured practical examination: Perceptions of the 1<sup>st</sup> year allied health sciences students in basic medical sciences

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#### ABSTRACT


**Background:** Learning should be concept oriented. Especially, in the medical sciences, skill-based learning is essential than theoretical learning. OPSE is one such eligible assessment tool to assess students' individual competencies. **Aim and Objective:** The present study is taken up to learn the perception of the students regarding OPSE when compared to traditional subjective practical assessment patterns. **Materials and Methods:** One hundred 1<sup>st</sup> year male and female physiotherapy students were part of the study after obtaining the written informed consent. Students were trained in objective structured practical examination (OSPE) through an orientation program conducted by head of the department of physiology. Students were explained the importance of OSPE in developing the practical skills. Five OSPE stations were arranged during the practical examination and checklist was provided to the examiner. The OSPE is from hematology and the questions were like "Prick your own finger under aseptic conditions." After completion of the examination, all the students were requested to give their perceptions about the OSPE. Standard questionnaire from the literature was used in the study. **Results:** Majority of the participants agreed that OSPE is an effective method of examination and can be implemented in the curriculum. **Conclusion:** The study provides further results for effectiveness of OSPE as an effective tool in the examinations. The study results recommend implementation of OSPE in the curriculum.

**KEY WORDS:** Allied Health Sciences Students; Examination; Education; Objective Structured Practical Examination

#### INTRODUCTION

Learning should be concept oriented. Especially, in the medical sciences, skill-based learning is essential than theoretical learning. From the medical student, it is expected that the student should not only be perfect with the theory but should possess the necessary skills in handling the case

with confidence and in producing the quality of success. This improves the medical care and it is possible only by structured skillful learning and not by mugging up the subject and putting it on the paper. It is a need of time that a medical student should be assessed by concepts, skills, and their applications when required. To achieve this goal, the pattern of assessment should be more structured, clinical oriented with clear objectives and not through written assessments or through viva. Medical education is evolving in the country and is focusing on innovative methods of learning life sciences.<sup>[1]</sup> Conventional practical assessments in practice are more subjective, wherein practical oral examinations mostly assess the students through viva voice.<sup>[2]</sup> The disadvantages of these being no structured or standard questioning pattern, inconsistent rating or allotting marks to the students, and

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time to assess individual student various depending on the student's performance.<sup>[3]</sup> The student attitudes are not tested in this pattern, the outcome may get affected if the student has poor communication skills. To overcome these noted problems in assessing students' academic performance, many innovative assessment tools are introduced emphasized to acquire clinical, scientific, and practical procedures including communication skills. This enables the development of three domains of learning affective, cognitive, and psychomotor domains.<sup>[4]</sup> One among those tools is objective structured practical examination (OSPE). Assessment should be a goal-oriented process reflecting a multidimensional integrated learning. The ultimate goal of medical education using various tools is to ensure a medical student to integrate knowledge, apt diagnosis, improve the communication skill, patient care, social well-being, and inculcate the habit of lifelong learning.<sup>[5]</sup> OSPE is one such eligible assessment tool to assess students individual competencies. The present study is taken up to learn the perception of the students regarding OSPE when compared to traditional subjective practical assessment patterns.

## MATERIALS AND METHODS

### Study Design

The present study was observational study. The 1<sup>st</sup> year physiotherapy students were trained in OSPE through an orientation program conducted by head of the department of physiology. Students were explained the importance of OSPE in developing the practical skills. Five OSPE stations were arranged during the practical examination and checklist was provided to the examiner. The OSPE is from hematology and the questions were like "Prick your own finger under aseptic conditions." After completion of the examination, all the students were requested to give their perceptions about the OSPE. Standard questionnaire from the literature was used in the study.

### Study Setting

The present study was conducted at Little Flower Hospital and Research Centre, Angamaly, Kerala.

### Study Participants

One hundred 1<sup>st</sup> year male and female physiotherapy students were part of the study after obtaining the written informed consent. Willing participants were included in the study.

### Ethical Clearance

The present study was approved by the Institutional Ethical Committee.

### Statistical Analysis

Data were presented as frequency percentage.

## RESULTS

Results are presented in Table 1. About 88% of students agreed that the questions asked were relevant in OSPE. About 90% of students agreed that the time provided was sufficient for completion of OSPE station. About 95% of students agreed that the OSPE is fair compared with old method. About 70% of students agreed that the OSPE is easier to pass when compared with conventional method. About 90% of students recommended implementing OSPE as method of assessment in physiology. About 91% of students agreed that OSPE helps to improve the practical skills. About 91% of students agreed that OSPE provides chance to score better. About 100% of students agreed that OSPE is less stressful when compared with conventional examination. About 84% of students agreed that OSPE makes student think in more than one way. About 86% of students agreed that OSPE eliminates bias.

## DISCUSSION

It is a belief that practical enables the students to get enriched with both theory and application knowledge, excelled with skills and attitude to qualify the examination. In medical field, practical skills are very essential, so curriculum should be framed in such a way wherein student learns and masters the subject of interest. Unfortunately, it is a fact that even after devoting about 50% of the academic schedules for practical, the expected skills required to be a medical doctor are not ensured. Thus, it is a need of time to analyze the assessment methods at present in practice and high time to inculcate the necessary modifications as per the requirement to improve the proficiency of the psychomotor skills and cognition. One such most accepted assessment tool is OSPE.<sup>[6]</sup> It is an extended version of objective structured clinical examination. This was for the 1<sup>st</sup> time got introduced by Nayar *et al.* in 1986 and the main aim being assessing the practical skills of the students in physiology. Besides testing the cognitive and psychomotor

**Table 1: Perception of students on physiology OSPE**

Objectives	Yes	No
Questions in OSPE were relevant	88 (88)	12 (12)
Time provided was sufficient	90 (90)	10 (10)
OSPE is fair compared with old method	95 (95)	5 (5)
OSPE is easier to pass compared to conventional method	70 (70)	30 (30)
Recommend to implement OSPE as method of assessment in physiology	90 (90)	10 (10)
OSPE helps to improve the practical skills	91 (91)	9 (9)
Provides chance to score better	87 (87)	13 (13)
Less stressful than conventional method	100 (100)	0 (0)
Makes student think in more than one way	84 (84)	16 (16)
Eliminates bias	86 (86)	14 (14)

Data were expressed as frequency percentage. OSPE: Objective structured practical examination

skills, OSPE also helps in assessing the observational skills, with proper analysis and interpretation. The merits of OPSE are – it is valid, reliable, objective, and discriminatory. It has standard questioning patterns for all the students.<sup>[7]</sup> All the learning domains with wide spectrum of clinical aspects are covered by OSPE. In a short period of time or in allotted time, examiner can test a wide range of student skills and further achieving the learning objectives those required.<sup>[8]</sup>

Examiner can control the complexity and overall content of the examination. Further, OSPE can ensure to improvise the analytical skills. OPSE helps to prepare standard SOPs, good constructive skills, and cut down the time consumption to conduct the assessment.<sup>[9]</sup> OSPE helps in assessing a wide variety of students from different backgrounds, integrates the teaching and learning skills those skills which are not basically focused in gigantic lectures. Assessment through OPSE marks the criteria which is in advance structured and published. It ensures that all the students face same test pattern and interactions irrespective of examiners. OPSE unlike other methods also do possess certain drawbacks like it takes lot of time in structuring the program, demands team work, more faculty careful, and proper organization. However, students' perception about OPSE is quite satisfactory and supportive. They opinioned that it improved their thinking ability, skills required knowledge, communication, and learnt their strengths and weaknesses. Thus, OPSE tends to be a useful assessment tool if planned perfectly with clear aims and flexibility in the initial stages of learning. Improving communication skills of a student are yet another advantage of OPSE which could not be achieved through traditional way of practical assessment. OPSE facilitates easy and fast way to assess the practical skills of the students in large group in a fixed amount of time. It is reproducible and adaptable tool for different skills irrespective of various disciplines and locations.<sup>[10]</sup> OPSE improves the departmental activity by promoting the teamwork. Certain disadvantages of OPSE are demands the efforts of the faculty to establish, as it requires proper planning and organization. It also requires backup plans. The checklists provided prior may enable students to memorize the steps involved in the assessment rather learning and practicing the skills. This apart, OPSE can be still included and implemented as one of the assessment tools for basic sciences for allied health students.

## CONCLUSION

The study provides further results for effectiveness of OSPE as an effective tool in the examinations. The study results recommend implementation of OSPE in the curriculum.

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