

Comparing the Assessment Quality of Trained Versus Untrained Peer Examiners in Obstetrics and Gynaecology in Objective Structured Clinical Examination (OSCE)

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ABSTRACT

Background: Assessment has been shown in studies to have a significant impact on the learning process. There has been a lot of interest in making assessment an important element of the learning process for students. Senior medical students may be able to assist teachers with peer evaluations. There is little evidence to support the idea that peer examiners should be officially trained before taking on the job.

Aim: To find the difference in teaching faculty scores of untrained and trained peer examiners in Obstetrics & Gynecology OSCE.

Study design: Cross-sectional (analytical) study

Place and duration: The study was conducted at Sialkot Medical College Sialkot" affiliated with Imran Idrees Teaching Hospital in Obstetrics /Gynecology department over the period of 6 months from January 2022 to June 2022

Methodology: One hundred and five medical student of 4th year were enrolled for practice of OSCE examination. Forty final year medical students took part in the assessment program as peer examiners. One group of examiners were given 2-hour training session describing about the assigned OSCE stations, marking method, evaluation, and feedback methods. Other group was given only checklist to read with no prior training. Using the checklist and a global rating, senior faculty and peer student examiners (both trained and untrained groups) simultaneously assessed students in basic Obstetrics /Gynecology clinical skills at 4 OSCE stations. Every station ran for five minutes (3 minutes of evaluation while 2 minutes of feedback). A comparison between the check list and global rating scores of trained and untrained peer student examiners was made. SPSS version 21 was used to calculate intra-rater reliability was assessed to build the consensus of faculty examiners with the trained and untrained peer examiners according to checklist scores and global rating.

Results: Student examiners found sitting at OSCE stations as a useful learning experience. Observing different performances at OSCE stations was so absorbing and it gave them awareness about examination procedure.

Practical implication. Peer assessors in a formative OSCE could be successfully implemented in the curriculum of a large medical school with more than 100 students annually. They can be trained to conduct undergraduate assessments of their junior peers and can prove to be very reliable and effective assessors.

Conclusion: Peer markers who underwent the formal training session showed the capacity to assess fourth-year students with suitable consistency and devotion. Hence training helped to improve peer marker consensus with faculty.

Keywords: Peer examiners, OSCE, trained peer examiner, untrained peer examiner.

INTRODUCTION

Evaluation or assessment has been shown in studies to have a significant impact on the learning process. There has been a lot of interest in making assessment an important element of the learning process for students^{1,2}. Over the last two decades, there has been a lot of support for peer and self-assessment in educational research. Financial costs, logistical issues, and examiner availability are just a few of the hurdles that come with adopting OSCEs on a regular basis³. OSCEs are structured clinical tests in which a student analyses a case, answers questions, and then performs a task. In some cases, the patient is a standardised one, and the task entails communication^{4,5}.

Senior medical students may be able to assist teachers with peer evaluations. Educators who use peer evaluation and feedback in OSCEs are divided on whether peer examiners should be taught in assessing and providing feedback to their peers. There is insufficient evidence in the literature to support the idea that peer examiners should be officially trained before taking on the job. However, it would be interesting to see if more intensive feedback training improves the accuracy of the global markings scores in the practice OSCE.

The objective of the study was to find the difference in teaching faculty scores of untrained and trained peer examiners in Obstetrics & Gynecology OSCE.

METHODOLOGY

It was a comparative analytical study. Sampling was done through purposive homogeneous sampling technique. Statistical analysis was done through SPSS version 21 software. Intra rater reliability was assessed to build the consensus of faculty examiners with the trained and untrained peer examiners according to checklist scores and global rating. Study was conducted at Sialkot Medical College Sialkot affiliated with Imran Idrees Teaching Hospital in Obstetrics /Gynecology department over the period of 6 months from January 2022 to June 2022. Total one hundred and five medical students of 4th year were undertaken in OSCE examination practice. Forty final year medical students took part in assessment program as peer examiners. One group of examiners were given 2-hour training session, describing about the assigned OSCE stations, marking method, assessments and feedback method. Other group was given only checklist to read with no prior training. Using the checklist and a global rating, senior faculty and peer student examiners (both trained and untrained groups) simultaneously assessed students in basic Obstetrics /Gynecology clinical skills at 4 OSCE stations. Every station was run for 5 minutes (3 minutes for examination and 2 minutes for feedback).

1. Obstetric history taking
2. Obstetric examination
3. Gynecological history taking
4. Pelvic examination

A comparison between the check list and global rating scores of trained and untrained peer student examiners was made.

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Examiner ratings: Investigators were given instructions to use a standardised marking sheet to evaluate 4th year students taking the OSCE. The marking criteria consisted of:

- Performed & correct
- Performed, not correct
- Not performed.

Global Judgment' marking criteria: For each station, the global judgment scores of both student examiners and senior faculty were assigned a numeric value based on their mark and a sign test was used to look for disparities in ratings. For satisfactory, number 1 was assigned, for borderline number 0.5 and for not satisfactory number 0 was designated

Second 'Global judgment: OSCE was judged by a faculty examiner at the same time. A second 'Global judgment' was made by senior academic for every OSCE station. **Academic global marks** were calculated as follows:

- Satisfactory if ≥80% criteria was marked by student examiner as "Performed & Correct";
- Borderline if 70-80% criteria was marked as "Performed & Correct"

- Not Satisfactory if <70% criteria was as "Performed & Correct"

RESULTS

In this study, we observed that at station 1, the student examiners were more satisfied than senior faculty examiner and the difference was statistically significant (p<0.05).

At station 2, student examiners were more satisfied than senior faculty examiner and difference was statistically significant (p<0.05).

At station 3, the student examiners were more satisfied than senior faculty examiner and the difference was statistically significant (p<0.05).

At station 4, the student examiners were more satisfied than senior faculty examiner and the difference was statistically significant (p<0.05) (Table 1).

Trained examiners reported that motivated to learn subject and found OSCE as a useful learning experience (Fig 1).

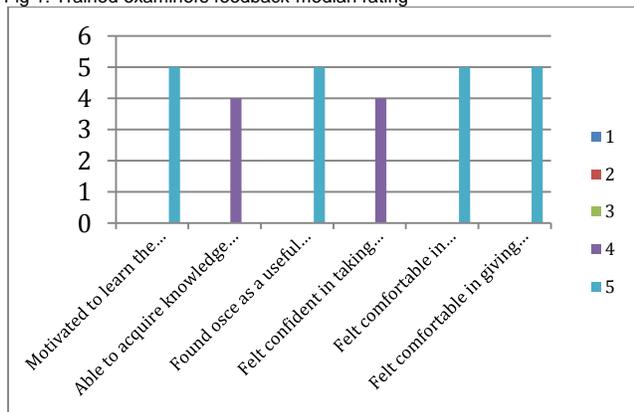
Student examiner also reported same findings and reported OSCE as a powerful tool for learning experience Fig 2.

Table 1: Practice OSCE stations between student an senior examiners

| | Station 1 (obs history) | | Station 2 (Obs exam) | | Station 3 (Gynae history) | | Station 4 (Pelvic exam) | |
|------------------|-------------------------|-----|----------------------|-----|---------------------------|-----|-------------------------|-----|
| | SE | SFE | SE | SFE | SE | SFE | SE | SFE |
| Satisfactory | 70 | 66 | 91 | 70 | 94 | 71 | 82 | 71 |
| Borderline | 31 | 29 | 11 | 20 | 7 | 17 | 15 | 22 |
| Not satisfactory | 4 | 10 | 5 | 15 | 4 | 17 | 8 | 12 |
| p-Value | P=0.008 | | P<0.001 | | P<0.001 | | P<0.001 | |

SE = student examiner, SFE = Senior faculty examiner

Fig 1: Trained examiners feedback-median rating



DISCUSSION

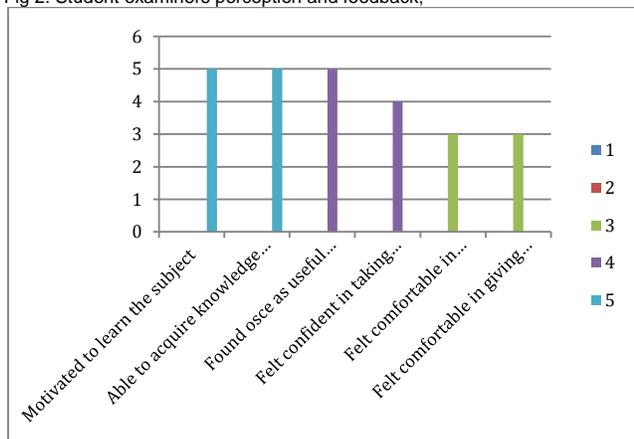
Peer examinations, such as student-led mock "Objective Structured Clinical Examinations", are becoming more common in medical school. While there is some evidence that examiner training can improve OSCE assessments, only a small percentage of students receive training before becoming examiners⁶.

Student examiners found sitting at OSCE stations as a useful learning experience. Observing different performances at OSCE stations was so absorbing and it gave them awareness regarding the examination procedure. An opportunity to contribute to their peers' education by sharing their knowledge. Examining and evaluating their own knowledge and skills was a beneficial experience for them. They praised the value and satisfaction of giving comments to junior peers. Repeating the same OSCE many times helped in reinforcement and memorizing the skill. Some students found the act of sitting at one station all the time and repeating same OSCE station multiple time as very dull. Student examiners believed that there was not enough time to provide comments to students, particularly those who were having difficulty achieving a decent grade. Assessed only in one subject that is gynecology and obstetrics.

For licensing, the Medical Council of Canada conducts an objective organised clinical examination. Traditionally, these examinees have been reviewed by medical examiners. Physician recruitment is becoming more difficult. It's becoming more important to figure out if alternate scorers can be used. The Medical Council of Canada conducted a research in 2003 that included trained assessors with physician examiners⁷.

Student-led OSCEs are one of the more well-studied modalities of peer examination, according to a 2014 systematic review⁸. Mock OSCEs are mock clinical examinations that use standardized patients and senior students as examiners. Mock OSCEs have been demonstrated to be a viable option for providing additional practice for medical students while also allowing for greater opportunity for early intervention^{2,9}.

Fig 2: Student examiners perception and feedback;



CONCLUSION

Peer assessors who attended the formal training session demonstrated the ability to evaluate fourth-year students with sufficient consistency and dedication. As a result, peer marker consensus with faculty improved as a result of training. Peer-based assessment is used for a variety of reasons. It not only provides excellent experience in offering comments to the student examiners, but it also serves as a useful learning activity for them. Their positive attitude toward the OSCE process contributed to a stimulating, low-stress environment on exam day. It gave them insight into exam technique as well as the opportunity to assess their own knowledge and clinical abilities, and it's a good approach to refresh knowledge in a hands-on setting.

Conflict of interest: Nil

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