

Medical Education

New experience with objective structured clinical examination in Jordan

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ABSTRACT

Objectives

To evaluate use of objective structured clinical examination (OSCE) in Jordanian medical schools for the first time to compare this with classical clinical examinations.

Methods

A questionnaire was distributed to all final year medical students at Jordan University of Science and Technology (JUST) and Muta University who sat for the OSCE in medicine. The questionnaire consisted of 2 sets of questions, the first one was about OSCE and the second about students rating of three assessment formats. The questionnaire was approved by the ethical committees of both JUST and Muta universities

Results

Out of 272 participants, 234 (86%) completed the questionnaire and 72% felt that the examination was fair and 97% agreed that it was comprehensive. In comparison to the other formats, only 12% of participants considered the examination as difficult in contrast to 68% who rated the conventional clinical examination as difficult.

Conclusion

OSCE was rated fair and comprehensive means of evaluation. There is need for making the test reliable and appropriate for evaluating resident doctors. (Rawal Med J 2010;35:).

Key words

OSCE, Jordan, Royal Medical Services.

INTRODUCTION

Dissatisfaction with the conventional methods of clinical assessment from the part of teachers and students led assessors to search for appropriate alternatives. In 1975, Harden and his colleagues introduced the objective structured clinical examination (OSCE).¹ The OSCE requires the candidates to rotate through a series of stations in which they are required to perform a variety of clinical tests. Harden and Gleeson described two types of stations, procedure station and questions station.² This way of evaluation is used in assessing medical competence in most of the medical schools and in post graduate training all over the world. The first application of OSCE in Jordan was in 2006, at Jordan University of Science and Technology (JUST). Aim of this study was to see our students' evaluation of OSCE, so as to

avoid pitfall in case of application at postgraduate evaluation of medical residents and national board examination.

METHODS

A questionnaire was distributed to 272 final year medical students who had OSCE form of examination during their final examination in medicine at JUST and Muta universities. The questionnaire, which was approved by the ethical committees of the two universities, was made of 2 sets of questions. The first one was about OSCE evaluation and for each question there were four alternatives: Agree, Neutral, Disagree, and No Comment. The second question was about student rating of three assessment formats, so as to compare OSCE with two other formats, multiple choice questions (MCQ) and conventional clinical examinations formed of long cases, short cases and oral part. Examiners as well as examinees had enough training about OSCE and had a similar mock examinations held one month before the finals. There is no formal skills laboratory.

RESULTS

A total of 234 students completed the questionnaire. Most of students agreed that OSCE is a fair examination (Table 1).

Table 1. OSCE evaluation.

Question	Agree N (%)	Neutral N (%)	Disagree N (%)	No Comment N (%)
Exam was fair	169 (72%)	28 (12%)	35 (15%)	2 (1%)
Exam was comprehensive	227 (97%)	--	7 (3%)	--
Exam was stressful	7 (3%)	28 (12%)	199 (85%)	--
Emergency issues included	229 (98%)	--	5 (2%)	--
EKG + X ray difficult	234 (100%)	--	--	--
Exam well structured	222 (95%)	--	12 (5%)	--
Had minimal chance of failing	206 (88%)	23 (10%)	5 (2%)	--
Need more time at each station	7 (3%)	9 (4%)	218 (93%)	--
Wide range of skills covered	222 (95%)	5 (2%)	7 (3%)	--
Easy to deal with simulated patient	220 (94%)	2 (1%)	7 (3%)	5 (2%)
Communication skill included	75 (32%)	--	152 (65%)	7 (3%)
Ethical issues included	12 (5%)	--	222 (95%)	--
Handicapped patients present in one station	--	--	234(100%)	--

It was comprehensive as wide range of knowledge and skills were covered. However, ethical issues, such as breaking bad news were not adequately covered. Students rated stations with EKG interpretation radiology materials as difficult; this calls for appropriate theoretical and practical training of these subjects in our medical schools.

Table 2. Students rating of 3 assessment formats.

1. How difficult is the exam?	Difficult N (%)	Undecided N (%)	Easy N (%)
MCQs	122 (52%)	47 (20%)	65 (28%)
OSCE	28 (12%)	54 (23%)	152 (65%)
Conventional clinical	160 (68%)	51 (22%)	23 (10%)
2. How fair is the exam?	Unfair	Undecided	Fair
MCQs	--	--	234 (100%)
OSCE	35 (15%)	31 (13%)	168 (72%)
Conventional clinical	204 (87%)	16 (7%)	14 (6%)
3. How much do you learn from the exam?	Learn very little	Undecided	Learn lots
MCQs	145 (62%)	7 (3%)	82 (35%)
OSCE	35 (15%)	42 (18%)	157 (67%)
Conventional clinical	35 (15%)	77 (33%)	122 (52%)

Conventional clinical examination was thought to be more difficult by study participants (Table 2).

DISCUSSION

The OSCE was considered by most of the students as a fair examination, as all of them had the same patients and data at each station. A similar evaluation in Jamaica showed the same feedback, but in contrast to our study, students in Jamaica felt that it was a strong anxiety-producing examination.³ Most of the students in our cohort found it was easy to deal with the simulated patients; other studies showed standardized patient examiners were more acceptable to students than simulated patients.⁴⁻⁵ OSCE was used by many centers to evaluate communication skills, physical diagnosis, medical competence, history taking and basic life support.⁶⁻⁸ Problem based learning courses were well appreciated by British senior house officers as assessed by the MCQs and OSCE.⁹ The micro OSCE, a modified OSCE, was used by same examiners to assess history taking and clinical examinations as they found a full-fledged OSCE with several stations as non-practical.¹⁰ Standardized patients and OSCE were suggested to be most suitable to assess two-thirds of core clinical skills.¹¹ Appropriate OSCE has been considered good for assessing medical students as well as examiners.¹² The OSCE has been used widely in many medical branches to assess clinical competency.¹³ One study compared students' reactions to three typical examinations in health science and found the pencil and paper form the easiest by students and produced minor symptoms during examination.¹⁴ Multiple mini interview process that, unlike traditional panel interview, uses

OSCE model to have candidates interact with large number of the interviewers, and this has better predictive power than traditional panel interviews.¹⁵ In conclusion, medical students rated OSCE format as fair, comprehensive and appropriate for application at medical school. However, more studies and feedback from other medical schools is warranted

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Received: December 10, 2009 Accepted: February 24, 2010

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