

FACULTY AND STUDENT PERCEPTIONS ON THE INTRODUCTION OF OBJECTIVE STRUCTURED CLINICAL EXAMINATION IN AN UNDERGRADUATE PHYSIOTHERAPY COURSE: A PILOT STUDY

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ABSTRACT

Background: The clinical education methods in undergraduate physiotherapy training are well integrated but the methodology of the clinical skill assessment still remains subjective. Due to lack of objective clinical assessment, competency in clinical skills becomes compromised.

Aim and Objectives: To introduce Objective Structured Clinical Examination to Physiotherapy faculty, students and determine the perception of Physiotherapy faculty and students about OSCE method of clinical assessment.

Methodology: OSCE was conducted to undergraduate physiotherapy 4th year students (n – 20) by OSCE trained staff members (n -8) of College of Physiotherapy. CMC & H, Ludhiana. By the end of exam, self-administered questionnaires were distributed and piloted to both faculty and students. They answered each item on 5- point Likert scale from 1 (strongly disagree) to 5 (strongly agree).

Results: The piloted data was analysed with descriptive statistics. The entire faculty perceived that OSCE helping to enhance the evaluation method of clinical assessment. More than 80% of the students felt that OSCE should be an effective clinical assessment tool. Both faculty and students felt that OSCE method of clinical assessment is less stressful but more exhausting and lengthy. Both groups were satisfied except more preparatory period for the exam as they expressed in open comments.

Conclusions: This pilot study provided valuable feedback from faculty and students when OSCE assessment was introduced into undergraduate physiotherapy course. It helps for standardization of Physiotherapy clinical assessment.

KEY WORDS: OSCE, Formative PT assessment, faculty perception, Students' perception.

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INTRODUCTION

In physiotherapy education, skill training is an important component of curriculum, Hence it is essential to assess whether objective of skills acquisition has been met.

Presently, students undertake university studies and are required to complete clinical training in a range of settings and environments. During clinical training the students are assessed on

their application of theory to practice which will strengthen the work readiness of graduates [1]. But in current system, teaching staff don't evaluate the clinical skills of the students. This is a crucial problem in physiotherapy education. The clinical skill assessment still remains subjective due to lack of objective clinical assessment [2].

The traditional clinical assessment method has

inability to assess communication skill, practice of favouritism and failure to predict the future performance of the students [3]. Oral and viva examinations have been replaced by objective structured clinical examination (OSCE) in clinical sciences to overcome the problems which are faced in traditional clinical examination in medical institutions [4].

The Objective Structured Clinical Examination (OSCE) introduced in 1979 by Harden and Gleeson. It allows the actual demonstration of applied knowledge and skills rather than testing knowledge alone [5]. In recent years, research has focused on the use of objective structured clinical examination (OSCE) with standardized patients to improve clinical assessment of students, while simultaneously attempting to recreate realistic patients-care scenario during students' assessment [6]. OSCE is reliable and an established method with effective multi station, test for the assessment of clinical skills in an objective and transparent manner. It also provides opportunity to test their attitude and communication skills [7].

OSCE is used in several health professional education including undergraduate Medical students, Radiography, Dentistry, Paediatrics, Ophthalmology, Nursing and Pharmacy all over the world. There are only one national and few international studies reported on OSCE in physiotherapy field [8-11]. Therefore it requires more researches to find out the perception of students as well as faculty about OSCE. The hypothesis of the study was introducing OSCE method of assessment in an undergraduate physiotherapy course to provide opportunity to assess over all clinical competence of the students and also to determine the perception of faculty and students about introducing OSCE method of objective clinical assessment.

METHODOLOGY

The faculty and final year undergraduate students of the College of Physiotherapy, CMC & Hospital were included in this study with duly signed informed consent. Eight faculties were sensitized to the objective structured clinical examination (OSCE) by organizing a mini workshop. The faculty then developed 15 stations (5 observed stations, 8 non observed

stations, 2 rest stations) for physiotherapy in musculoskeletal condition for 4th year UG students. A self-made questionnaire was used to assess the perception about the introduction of the OSCE for faculty and students subject experts.

Twenty final year undergraduate students were oriented about OSCE method of clinical examination through practice session. After this, OSCE was conducted using standardized patients. On the day of exam, the students were rotate through each station, completed a task and answered a related theoretical question. Students completed each station in 5 minutes.

In observed station, the questions were focused on specific issues like pain history, MMT for specific muscle (Fig- 1). The examiner has a checklist for station with each steps carried a marks (marks was deviated to each steps) that they were filled out while observing each candidate.

Fig. 1: Observed station Fig. 2: Non observed station



In non-observed station, Students have answered the objective questions (Fig -2). The examiners have a model answer to correct the answer which was filled by students. Faculty gave feedback to the students about their performances after the exam.

Faculty and students perception about OSCE, a closed ended questionnaire using 5 point Likert scale was distributed and also included open comments.

Data analysis: The piloted data of faculty and students perception was analysed by descriptive statistics in SPSS version 16.0.

RESULTS

A. Faculty perception about OSCE: Eight faculty members of the College of Physiotherapy (1 Professor, 1 Associate professor, 4 Assistant professor, 2 Demonstrator) participated in the project and provided their perception.

The 5 point Likert scale of perceptions were analysed with mean, standard deviation and percentage of acceptance in Table- 1.

Table 1: Faculty perception about OSCE.

S.No	Category	Items	Students response (Mean ± SD)	Percentage of Agree* on Likert scale
1	Content	Covered in wide knowledge	4.0 ± 0.92	87.5
		Easy to pass	3.63 ± 0.92	62.5
		Viva – voice is better	2.75 ± 1.16	37.5
2	Validity	Fair	4.0 ± 0.76	75
		Personality, ethnicity, face value doesn't affect the OSCE score	4.13 ± 0.99	87.5
		Cheating was minimized	4.5 ± 0.53	100
3	Level of stress	Less stressful	3.75 ± 0.89	75
		Exhausting and Lengthy	3.63 ± 1.06	75
4	Utility	Suitable for all level of students	3.38 ± 1.19	75
		Help to assess future performance	3.88 ± 0.83	87.5
		Enhances teaching level	3.63 ± 0.92	62.5
		Enhances evaluation method	4.3 ± 0.52	100

*= Agree and strongly agree combined together.

Some of the responses to the open comments of the faculty perception are as follows

- OSCE is formative type of time saving comparing with traditional exam.
- It will help in addressing more clinical aspect as compared to traditional way of taking examination.
- Easy to administer.
- Overall knowledge of the students in each topic can be assessed.

OSCE is feasible method of evaluating the individual student to know their skills.

B. Students' perception about OSCE: The students' perceptions Questionnaires items were divided into four categories (Content, Validity, Stress level, utility). The 5 point Likert scale of perceptions were analysed by Mean, SD and percentage of acceptance in Table 2.

Table 2: Perception of Students about OSCE.

S. No	Category	Items	Students response Mean + SD	Percentage of Agree* on Likert scale
1	Content	Covered wide knowledge	4.3 ± 0.48	100
		Easy to pass	3.3 ± 1.06	60
		Viva – voice is better	2.7 ± 1.25	30
2	Validity	Fair	4.2 ± 0.63	90
		Personality, ethnicity, face value doesn't affect the OSCE score	4.1 ± 0.74	80
		Cheating was minimized	4.2 ± 0.92	90
3	Level of stress	Less stressful	4.3 ± 0.48	100
		Exhausting and Lengthy	3.3 ± 1.16	70
		Attitude of examiner was better	4.3 ± 0.95	90
4	Utility	Opportunity to learn real clinical area	4.3 ± 0.48	100
		Help to identifies their deficiencies in clinical skills	4.7 ± 0.48	100
		Leads to Increased decision making ability	4.4 ± 0.52	100
		OSCE should follow as assessment in UG physiotherapy course	4.2 ± 1.03	80

*= Agree and strongly agree combined together

The following are some of the responses to the **open comments of the students'** perception about OSCE method of assessment. One of the students perceived that duration of each station should be more than 5 minutes.

- OSCE is the best method for clinical exam.
- No Performance pressure
- Fear of facing the examiner is minimized.
- In future, exam should be conducted in the OSCE method.
- No bias.
- Actual decision making, communication ability, and clinical knowledge are judged.
- Timing of each station should be more than 5 minute

All the students have agreed that OSCE has covered a wide knowledge, less stressful and it provides opportunity to learn real clinical scenario, leads to increased decision making ability. They perceived that OSCE helps to identify their deficiencies in clinical skills. More than 80% of the students felt that OSCE should be an assessment tool for the physiotherapy course in which manipulation of score on the basis of personality, ethnicity and face value is not possible and it should be implemented as a clinical assessment.

The entire faculty perceived that OSCE helping to enhance the evaluation method of clinical assessment. More than 85 % of them agreed that it covers wide knowledge and helps to assess future performance without the influence of personality, ethnicity, and face value.

Both faculty and students felt that OSCE method of clinical assessment is less stressful but more exhausting and lengthy. Only less than 40 % of the students and faculty were comfortable with traditional viva voice of clinical assessment.

Both groups were satisfied except that it require more preparatory period for the exam, as they expressed in open comments.

DISCUSSION

OSCE has been introduced into predominantly medical education and other fields as an assessment tool that enables the objective evaluation of the clinical skills. The OSCE can evaluate the psychomotor, affective and

cognitive domain better than existing written exam.

Clinical competence includes the ability to solve problems, to think critically in order to apply clinical reasoning, to work as a team and to communicate effectively in both verbal and written forms. All of these skills are also necessary for a physiotherapist which could be assessed by OSCE. So that we need to identify the level of stake holders acceptance by pilot study of perception.

In Erfanian and Khadivzadeh study, 80 percent of mid wife students of Mashhad university of Medical Science (Iran) reported that they are highly and very highly satisfied with OSCE test [12].

Amiri M, Nickbakht M stated that highest level of satisfaction among audiology students with the equipment used in OSCE [13]. In our study, students and faculty were satisfied about OSCE and recommended to implement in the future exam.

Sadia S et al stated that students rated OSCE to be better and large number of students felt that OSCE was easier than other evaluation methods. Their results showed that medical students had a positive attitude towards OSCE as an alternative to assess clinical skills [14]. The present study results, both groups were strongly agreed and showed positive attitude towards OSCE.

Saadeldin et al study concluded that students and teachers accepted that this type of examination is better than the traditional examination. Most of the students and teachers agreed that examiner bias may be eliminated by following this type of assessment. OSCE was considered as quite stressful. Both were agreed that this type of examination may be exhausting and stressful with increased number of station and time of the exam⁴. The same kind of statement was presented in our study. But according to stress as concern both students and faculty felt less than other method of exams.

Limitations of the study: Sampling size is small, only one exam was conducted.

CONCLUSION

This pilot study provides valuable feedback from

faculty and students of Physiotherapy when introducing the OSCE assessment format into undergraduate Physiotherapy curriculum. It helps to standardize physiotherapy clinical assessment among students those who are appearing for examination. Our future aim is to implement OSCE in Physiotherapy education system to cultivate good clinical therapist

Conflicts of interest: None

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