Evaluating the undergraduate midwifery students' live experiences of the objective structured clinical examination (OSCE) assessment process: A phenomenological study

Molouk Jaafarpour[1], Mosayeb Mozafari[2], Ali Khani[2*]

1. Department of Midwifery, Faculty of Nursing and Midwifery, Ilam University of Medical Science, Ilam, Iran
2. Department of Nursing, Faculty of Nursing and Midwifery, Ilam University of Medical science, Banganjab, Ilam, Iran

***Corresponding author:**Tel: +98 9188345385 Fax: +98 8432227123
Address: Department of Nursing, Faculty of Nursing and Midwifery, Ilam University of Medical science, Banganjab, Ilam, Iran
E-mail: nimakhani@gmail.com
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Abstract

Introduction: Assessing the range of skills that midwives require is very important. This study was aimed at investigating live experiences of midwifery students from the Objective Structured Clinical Examination (OSCE) as an assessment tool.
Materials and methods: This qualitative study was conducted with a phenomenological approach and five pre-internship undergraduate midwifery students who undertook Objective Structured Clinical Examination, participated in this study. Purposive and voluntary sampling methods were utilized. Data were collected using in-depth, unstructured and individual interviews. Data were analyzed using Colaizzi's method.
Results: Following analysis, five main themes were emerged: previous preparation, implementation of OSCE, OSCE content, accuracy of OSCE and feedback of OSCE in clinical practice. The most important theme was feedback to students about their learning activity.
Conclusion: According to our findings, OSCE help midwifery students to recognize their weaknesses and thus improve their skills in clinical trainings. In addition, OSCE is a valuable tool to learn necessary skills for the profession of midwifery. Based on this study results, we suggest that OSCE assessment is a very beneficial method in midwifery education.

Keywords: Clinical assessment, Undergraduate students, Objective structured clinical examination (OSCE)

Introduction

Accurate assessment of skill competences ensures the clinical capabilities and improves the process of learning (1). Choosing a suitable method has been a source of concern for clinical teachers, course leaders and medical educators. Selection of the appropriate evaluation method can improve students' performance. Objective structured clinical examination (OSCE), as a well-established and a strong tool for evaluating clinical competence, has been used in health professions education around the world (2, 3). OSCE was first introduced in 1975 by Harden for assessing the medical students' clinical skills (4). Reliability and validity of the application of OSCE in the fields of medical sciences, have been shown by several studies (1, 5, 6).

One of the most important preventable causes of mortality is lack of professional knowledge and clinical skills among health-

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care workers. This is particularly important in midwifery to assess the scope and extent of skills that a midwife needs to achieve the professional midwifery. However, it is important to recognize that evaluation of clinical skills is complex and challenging. Clinical skills and competencies can be evaluated by various methods: written test, computerized tests, clinical checklist, a variety of simulations, PMP (patient management problem) and objective structured clinical examination (OSCE) (7). OSCE has been accepted as an effective and efficient assessment tool and the gold standard for evaluating clinical skills. Nevertheless, Murray et al suggest that only a few studies confirm and support the effectiveness of simulation training and clinical practice, as a safe clinical education, in today's lawsuit culture (8).

In Iran, there is no study in order to assess the midwifery students' concepts and experiences of OSCE test. Regarding to the numerous challenges in the field of clinical education and evaluation, as well as the lack of clear and applicable definition and different interpretations, we decided to conduct a qualitative study for assessing the midwifery students' live experiences of OSCE.

As long as considering clinical evaluation process, as a product of complex human communication, the detection of real relationship in this area requires in-depth research on the experiences and attitudes of members involved in it. Thus a phenomenological approach was chosen in response to this question that how midwifery students experienced OSCE and its challenges? Recognition of these challenges is important, because nowadays medical universities have pursued policy of using clinical exam, such as OSCE to assess the knowledge and skills of students.

Use of these methods of assessment for students who are used to paper-and-pencil test can be considered as a stressor and make them anxious. Understanding the experiences and reactions of students who have passed this test can facilitate and promote more accurate and more precise assessment of medical sciences students.

Materials and methods

Study design

In the Iranian system, midwifery education program consists of four years of studies divided into eight semesters. In the first three years (Pre-internship), midwifery training is a combination of theoretical, practical and clinical learning courses. While in the final year (internship training), education is only comprised of clinical training. At our university OSCE assessment conduct after completing sixth semester. Success of students in this exam is a mandatory for entering internship training course. Purpose of selecting these students for evaluation using effective, efficient and standard toll assessment such as OSCE is to assess the clinical competency and determine the level of achievement of desired educational goals after spending theoretical and clinical learning courses during the past three years, because the final year of internship training is the only opportunity in order to take necessary action for correcting the errors and removing defects and deficiencies from training programs.

This is a qualitative descriptive study that used a phenomenological approach to describe and analyze experiences of midwifery students from OSCE exam.

Ethical consideration

Ethical approval was obtained from the relevant ethics committee within the University (ethical code/92/H/185, 13/Dec/2012). Students participated with informed consent in all phases of the study and the purpose of the study was fully explained to them.

Before starting the interview, we asked participant’s permission to record the interviews. Duration of interview was based on the ability and willingness of the students to continue the interview. At any

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time and for any reason that students were not willing to continue, the interview ended and if necessary, in subsequent meetings with the consent of the student continued.

Participants

In this study, samples were taken from all students who had experienced OSCE assessment. Sampling method in this phenomenology study was purposive and voluntary. Five pre-internship midwifery students, who undertook OSCE, participated in this study. After interviews with five students, the next interviews did not add any new data which represent the saturation point for this study.
Inclusion criteria were: Pre-internship Bachelor of midwifery students; completion of all special courses and a tendency to participate in the study.

Statistical analysis

In this research, data was collected via in-depth, unstructured and individual interviews with open questions. The interviews were conducted in a private environment with cooperation and tendency of the participants. At the beginning of each interview, we explained the research objectives, how we do it for participants and their full consent to participate in research was taken. The central question from students was: what is your experience and understanding of OSCE test and how was its execution? The duration of each interview took 40 to 50 minutes. The content of the interviews was transcribed word by word and again were compared with the recorded data. We analyzed data using Colaizzi's method.

Validity and reliability

Researchers provided the validity and reliability of study, with consideration of the following: 1- interviews were returned to participants in order to confirm the translation of interviews. 2- a number of interviews to verify the research findings, were referred to other experts and their comments were applied. 3-During the study, researchers tried to avoid any prejudice to the phenomenon studied before and after the interview.

Results

Transcripts that extracted from interviews were analyzed by Colaizzi's method and codes extracted from it. Then the codes were categorized into 5 themes including preparation, implementation of OSCE, OSCE content, accuracy of OSCE and feedback of OSCE.

Preparation

Based on the experiences of participants, previous preparation in aspects of theoretical and practical courses was an essential need for OSCE assessment. This finding is highlighted in the following statements:
"It wasn’t planned in advance" (Participant 1)."We afraid, because it was new thing and we had no information about it. "(Participant 5).
In the experiences of participants, the lack of preparation was regarded as an important stressor that reduced their confidence. "If we practice before the exam it would be better, if I tried more skilled I definitely was more confident" (Participant 1).

OSCE execution

The theme of OSCE execution was another common experience among participants that is addressed in all interviews.
Fictitious physical environment of OSCE exam was reported by some students. "The exam should be held in more realistic environment "(Participant 2). Some student felt that number and sequence of stations was not appropriate. This finding can be seen in the statements by students who reported that "Stations were crowded and noisy. The first station was difficult so, my stress increased and all of my attention was concentrated on first station"(Participant 1). Students also preferred unfamiliar assessors rather than their instructors. "I just thought

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that she is my instructor and this may affect her subsequent judgments about me"(Participant 1). Some students reported that waiting in the corridor beforehand was very stressful and also they had no positive experience about arrangement of students for OSCE exam. "When the students were entering to the assessment room one by one, they came out and pointed to the difficulty of the exam, our stress increased"(Participant 5).

In experiences of some participants, time frame of stations was not appropriate which result in their inability to demonstrate their full capabilities in the exam.

"When I was interpreting paragraph, I wanted to write my answer completely, but I run out of time " (Participant 2).

"Its time wasn't appropriate. I think low amount of time was given to one station and extra time to another one" (Participant1).

"The time announcing by assessors wasn't so good, it was all talking about time that is very stressful". (Participant 4).

OSCE content

One of concepts that emerged from interviews was OSCE content. All of the participants found practical aspect of the OSCE as a positive experience and suggested that more need to be considered.

"It was really a new thing, its practice was good, especially the simulated patients, I think that is very useful for midwifery, it's better that to ask more practical tips in the delivery station"(Participant 3).

"Simulated patients are very excellent for history taking and should be trained well " (Participant1).

Some students stated that OSCE was a comprehensive tool for assessing their competencies.

"OSCE assessed all of our knowledge and simultaneously asked us " (Participant1).

Accuracy of OSCE

One of the most important participant's experiences was the authenticity and accuracy of OSCE. Their interviews clearly showed that the OSCE is better than other assessment tools to evaluate the students' clinical competency. These findings are highlighted in the statement of participants:

"OSCE really evaluated students competency" (Participant 1).

"OSCE just acted as a filter" (Participant 4).

Other students stated this concept as following:

"Clever student shouldn't run short of such a practical exam" (Participant 5).

"In this exam, a person who is more skilled is more successful " (Participant 1).

Feedback of OSCE

The results of this study showed that feedback of OSCE test is the most important theme which steer students toward judgment. This positive experience in their statements and interviews clearly has been shown;

"I realized where and how much I'm weak. So I recognized my weakness and it's valuable for me. "(Participant 1).

Pre-internship midwifery students reported the OSCE exam as a suitable opportunity to identify their weaknesses.

"If I didn't take OSCE exam, I never realize how much I know practical skills, now I practice all of them in clinical centers. Overall I'm very satisfied and I think the majority of my friends feel good" (Participant 2).

Another student said: "I found out that some coaches had weaknesses in our training, and I think it's very good for evaluation of educational system" (Participant 2).

"OSCE bring us a good sense of communication with our instructors that is now going on"(Participant 2).

Discussion

At this qualitative study we evaluated the pre-internship midwifery student's experiences of objective structured clinical examination. One of the experiences of students in the study was previous preparation in theoretical and practical courses that was necessary for success in

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the OSCE exam. Since OSCE assessment was conducted on midwife's students of Ilam University of Medical Sciences for the first time, this challenge was more evident. This finding is consisted with study of Barry M et al (7). Norris states that planning for using of simulation in midwifery education programs increases skills development and its transfer to clinical practice and training (9). Some studies suggest the implementation of simulation activities for skills training rather than facilitate learning of concepts (10). However, Birch et al argue that combination of lecture-based training simulation is an appropriate method to prepare learners and improving their performance in short-term (11). With respect to student's statements, previous preparation for OSCE especially in practical aspect increase their confidence and thus reduce stress. Therefore, if OSCE exam conduct with a previous preparation and good background, it reinforces real self-assessment of students (12) and result in enhancing their confidence (13).

Based on our study, OSCE execution should be more considered. A number of students complained of some executive problems of OSCE exam, such as inappropriate time frame of stations, being crowded and noisy stations that these problems could causes the students can not completely demonstrate their competences. These findings are agreement with some previous studies (14, 15). Also waiting in the corridor beforehand was very stressful for students and they had no positive experience about it. Especially when they saw the students exiting from exam room and they pointed to difficulty of exam that was consistent with the study by Barry et al. (7). Brosnan et al. believe that by placing someone as corridor facilitator and providing guidance to the examinees, this problem can be solved (16). Therefore, providing the appropriate time frame and physical environment can reduce the stress of student and enhance reliability of OSCE test.

One of the findings of this study was student's experience of content of OSCE. According to this study it is would better that we use more practical aspects and skill lab in the stations. Also for history taking and patient caring, students prefer simulated patients rather than simulators. This finding is agreement with the Jay' study that states communication cannot be considered as a separate situation and evaluated by using a simulator. (14). Accuracy of OSCE is another common concept that students stated clearly in their experiences. The student believed that OSCE assessment is a better tool to accurate assessment of competencies that is essential need for professional midwifery rather than other tools assessment and this can increase validity of OSCE assessment method (17). Several studies have shown the effectiveness of OSCE exam in midwifery (18, 19-22).

The main theme of this study was the feedback of OSCE assessment to student that drives deep and active learning of students in internship training. Race and Pickford express that effective evaluation should develop active and sustained learning in learners (23). In a study by Barry et al, students reported that their participating in OSCE exam caused a deep and meaningful learning in them (7). Jay found similar results in his study that are consistent with our study findings (14). Based on experience of student, OSCE assessment increases the ability of students to identify their strengths and weaknesses. Franklin declares that feel the need for skills development to career functions, causes active learning in students (24). Improve communication between instructors and students was one of the benefits of OSCE that some of the students noted and it can also promote better learning in them.

Furthermore, finding out the weak points of instructors and educational system was declared in statement of students. Therefore, OSCE can assess coaches and educational status and can be flip or

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warning in order to review and revision of current educational and training system.

Conclusion

Overall, our study findings are consistent with previous studies about OSCE in Nursing and Midwifery. According to our findings, OSCE help midwifery students to recognize their weaknesses and thus improve their skills in clinical trainings. In addition, OSCE is a valuable tool to learn necessary skills for the profession of midwifery. Based on our study, we suggest OSCE assessment is a very beneficial method in midwifery education.

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Conflict of interests

The authors declare that they have no conflict of interest.

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