Original Article

Phenomenological analysis of the lived experiences of midwifery students about the B.S. final comprehensive exam of midwifery by Objective Structured Clinical Examination

Somayeh Nikkhah[1*], Hamid Reza Alavi[2]

[1] Department of Midwifery, Faculty of Nursing and Midwifery, Kerman Islamic Azad University, Kerman, Iran.
[2] Department of Educational Sciences and Psychology, Faculty of Humanities & Letters, Shahid Bahonar University of Kerman, Iran.

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*Corresponding author:
Somayeh Nikkhah, Department of Midwifery, Faculty of Nursing and Midwifery, Kerman Islamic Azad University, Kerman, Iran.
Email: Nikkhah_somayeh@yahoo.com

Abstract

Background & Objective: One of the important purpose of clinical education is to improve students' clinical skills. About 50% of midwifery education focuses on clinical education. One of the methods for assessing the performance of the student's qualified medical sciences is the Objective Structured Clinical Examination (OSCE). This study was designed to qualitatively explain the views of midwifery students of Islamic Azad University of Kerman on OSCE exam in comprehensive examination of midwifery undergraduate course in maternity unit. In order to answer the question, "What are the experiences and views of midwifery students regarding the final examination course the method Objective Structured Clinical Evaluation (OSCE) "?

Materials and Methods: In this qualitative study, a purposive sampling method was used among the undergraduate students of midwifery of Kerman Islamic Azad University which had made final as OSCE. The research was conducted to reach the sample size of 13 people, when data saturation occurred. Data were collected through semi-structured interviews for 30-40 minutes. The data were analyzed according to the descriptive- Colaizzi phenomenological approach.

Results: In the present study, the live experiences of students obtained through interviews with them showed that their expectations regarding clinical evaluation with an objective structure mainly included such cases: the necessity of clinical evaluation in OSCE; the need to use OSCE as a standard tool in clinical evaluation; the necessity of fair clinical evaluation with OSCE; the anxiety of this test.

Conclusion: In the clinical evaluation of the practicality of the test should be considered discovery of students 'practical skills, students' peace of mind and the administration of justice in evaluation at different stages of the test, and all these features are reflected in the OSCE. So this test can be used as an objective tool in clinical evaluation and its application to officials and relevant teachers suggested.

Introduction

One of the challenges of education systems in various societies is introducing graduates who lack the necessary skills and ability to work in real situations (1). Meanwhile, the main objective of medical education is reducing credentialism and turning to favorable meritocracy (2). The midwifery profession plays a fundamental role in pregnancy and postpartum care and the improvement of maternal and neonatal care. Research shows that midwifery graduates lack the necessary efficiency and skills to carry out some of the basic midwifery stages (3). About 50% of midwifery education during the education of undergraduate students in midwifery is clinical, which plays an important role in the formation of midwifery students' basic and professional skills (5). Effective evaluation is a method to determine students' level of learning and ensure midwifery graduates' obtaining of the necessary information about maternal and neonatal health during pregnancy and after childbirth (6). Since ancient times, there have been many challenges regarding the assessment of clinical skills and medical students' competencies, which have attracted the attention of researchers (7). Even though students deserve a valid and reliable evaluation (8), the assessment of midwifery students' clinical competency is one of the most difficult

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responsibilities of the faculty (9). Therefore, the Association for Medical Education in Europe has suggested various clinical evaluation tools that fit the educational goals f the institution, including the objective structured clinical examination (OSCE) (10).

The OSCE exam was first introduced by Harden in 1970 to assess the clinical skills of students (11, 12) in order to eliminate the shortcomings of traditional evaluation as a valid tool (13). Abbasi et al. (2013) and Patrício (2012) reported the validity and reliability of the tool to be 0.913 and 0.62, respectively (14, 15). Therefore, OSCE has been recognized as a golden standard evaluation tool to assess clinical performance (16). This tool has been accepted as a way to widely evaluate nursing and midwifery students' clinical competence (17). The exam comprises an organized framework encompassing several stations (18), which enables us to assess various skills of examinees in different situations (19, 20). In addition, the exam can improve students' performance and professional roles as a clinical presentation (21, 22). Therefore, OSCE has robust validity and reliability for assessing the clinical skills of individuals by standardizing patients' variables and using the examiner scoring method (10, 23). In addition, it gives instantaneous feedback to students, which reduces the time and cost of planning the test (24) and compensates for shortcomings of the traditional system of practical evaluation (25). Evidence shows that OSCE has been broadly applied in medicine (26), specifically in Iran, to assess the clinical skills of physicians, nurses, psychologists, social physicians, and emergency doctors (19, 27-30).

Nevertheless, students' stress and anxiety have been recognized as a cause of lack of use of OSCE (31, 32), in a way that 78.6% of dental students at Kerman University of Medical Sciences experienced increased stress levels due to OSCE exam (33). However, the stress caused by the exam could be beneficial for proper performance in emergency clinical situations (34). In a research by Killingley & Dyson (2016), midwifery students experienced increased stress levels during OSCE, which was similar to that of an emergency situation, considering it to be beneficial in this regard (35). In some studies, the majority of psychology (36), nursing (37) and medical students considered OSCE to be suitable for assessing their clinical capabilities and were satisfied with taking the test (38). Malakooti et al. (2018) marked that the use of routine assessment during the four-year bachelor of midwifery resulted in a score of below 50% in clinical midwifery questions in the OSCE pretest of a final exam at the end of the undergraduate nursing and midwifery course obtained by midwifery students in Isfahan (9). Given the midwifery students' inadequate knowledge of OSCE and with regard to little evidence available for the use of this test in midwifery education, especially since no objective research has been conducted from the perspective of midwifery students (17) and the subjective phenomena are evaluated in phenomenology, where the basic essence of reality is hidden (39), the present study aimed to determine the experiences and viewpoints of midwifery students toward the clinical exam with the objective structure of the graduation comprehensive exam of BSc in midwifery.

Materials and Methods

This was a qualitative study performed using the phenomenology approach, which is a subjective and systematic method used to describe life experiences and understand their meaning (40, 41). The phenomenological researcher considers all that is necessary to adequately describe a phenomenon in a stepwise manner (42). In February 2018, 21 BSc nursing students at the nursing and midwifery school of Islamic Azad University (Kerman Branch) were called to take the final exam at the end of the undergraduate nursing and midwifery course in the form of OSCE. A coordinating committee was formed three months ago before the OSCE exam. To make the necessary coordination and holding

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meetings and assigning responsibilities based on Gantt Chart (Figure 1), a list of practical skills of students in the maternity ward was prepared by referring to references, and 11 basic skills were identified based on expert opinions, which included deciding about the client seeking admission, midwifery history taking, interpretation of pregnancy non-stress test (NST), deciding about parturient women admitted to the maternity ward, interpretation of fetal heart rate (FHR), drawing and interpreting a maternity partograph, non-pharmacological relief of labor pain, examination of placentas and membranes, correct determination of dilatation, rehabilitation and determination of neonatal Apgar score and and Perform maneuvers related to the baby. In addition, a performance checklist was developed for each skill.

It was decided to take the rest of the comprehensive test on real parturient women in a maternity ward. Two weeks before the test, an educational and explanatory course was held for students to answer their questions and eliminate any ambiguity that could cause stress in these individuals. On the exam day, students were assessed by OSCE in three groups of five and one group of six in one day. The allotted time was the same for all stations and was eight minutes for each OSCE station. In addition, students had one minute to move between stations.

Afterwards, the participants were selected from BSc midwifery students at the nursing and midwifery school of Islamic Azad University, Kerman Branch, via purposive sampling. Then, their experiences and views on OSCE were evaluated, and the only inclusion criterion was informed consent. After receiving permission from the students, they were ensured of the confidentiality terms regarding their personal information. To adhere to ethical considerations, the research objectives were explained to the participants and they were allowed to withdraw from the study. Data were collected based on research objectives through semi-structured individual interviews performed in Payambar Azam Hospital or school of nursing and midwifery of Islamic Azad University for six months (February 2018-August, 2019), followed by note-taking and observation. The researcher aimed to evaluate all aspects of the issue and students' problems with OSCE. Data saturation was achieved in the 13th interview and students were numbered from 1-13. The guide of the interview was not based on a schedule, where items are designed regularly and word-by-word. In fact, the researcher designed the guide of the interview, which encompassed open and general questions to help students during the process, by preparing topics needed to obtain quality data. In the initial guide to individual interviews, the items were general questions: "could you please explain about your experience of attending the OSCE?", or "how did you feel? Could you elaborate on that?" Each interview ended with this question: "Do you have any other explanations about the exam?" or "is there any question you want to ask about OSCE?"

The participants were requested to state anything related to the OSCE that came to mind and that was not included in the questions since the main objective was to have a deep understanding of their experience. Each interview lasted 30-40 minutes and they were transcribed after receiving permission from the participants. However, the duration of interviews depended on students' willingness to continue the process. In addition, two students were interviewed twice. Interviews were collected, recorded and coded and analyzed using a Colaizzimethod over a six-month period. To this end, the interviews were transcribed and carefully read, followed by choosing 130 important sentences, which decreased to 32 sentences in the next assessments. The important phrases were determined and the meaning of each phrase was written in the form of initial codes. An example would be: "clinical evaluation with the OSCE should be based on the student's clinical skills rather than just on the theoretical ability of the individual." Following that,

the codes that were conceptually similar to each other were classified into 11 secondary components, such as: "OSCE, the ground for attention to students' clinical skills" or "awareness of achieving minimums in midwifery for students with OSCE". In the end, four main categories (e.g., providing practical clinical evaluation in the OSCE) were extracted by integrating more general categories and based on a complete description of the phenomenon under study (Table 3). Adequate time was given to the data collection process, the data was reviewed by the subjects, and adherence to bias was observed to ensure credibility and confirmability of the results. In addition, different participants, in terms of GPA and age, were selected in the research to confirm transferability. To remove any doubts and ambiguities, all the details of the research process from the sampling stage to the process of data collection and analysis were explained in detail. In order to confirm the dependability of the information obtained, two outsiders coded the interviews separately, and the consensus was obtained in this regard. The reliability of the data was confirmed by agreement on the transcript of the interviews between the researchers and the participants.

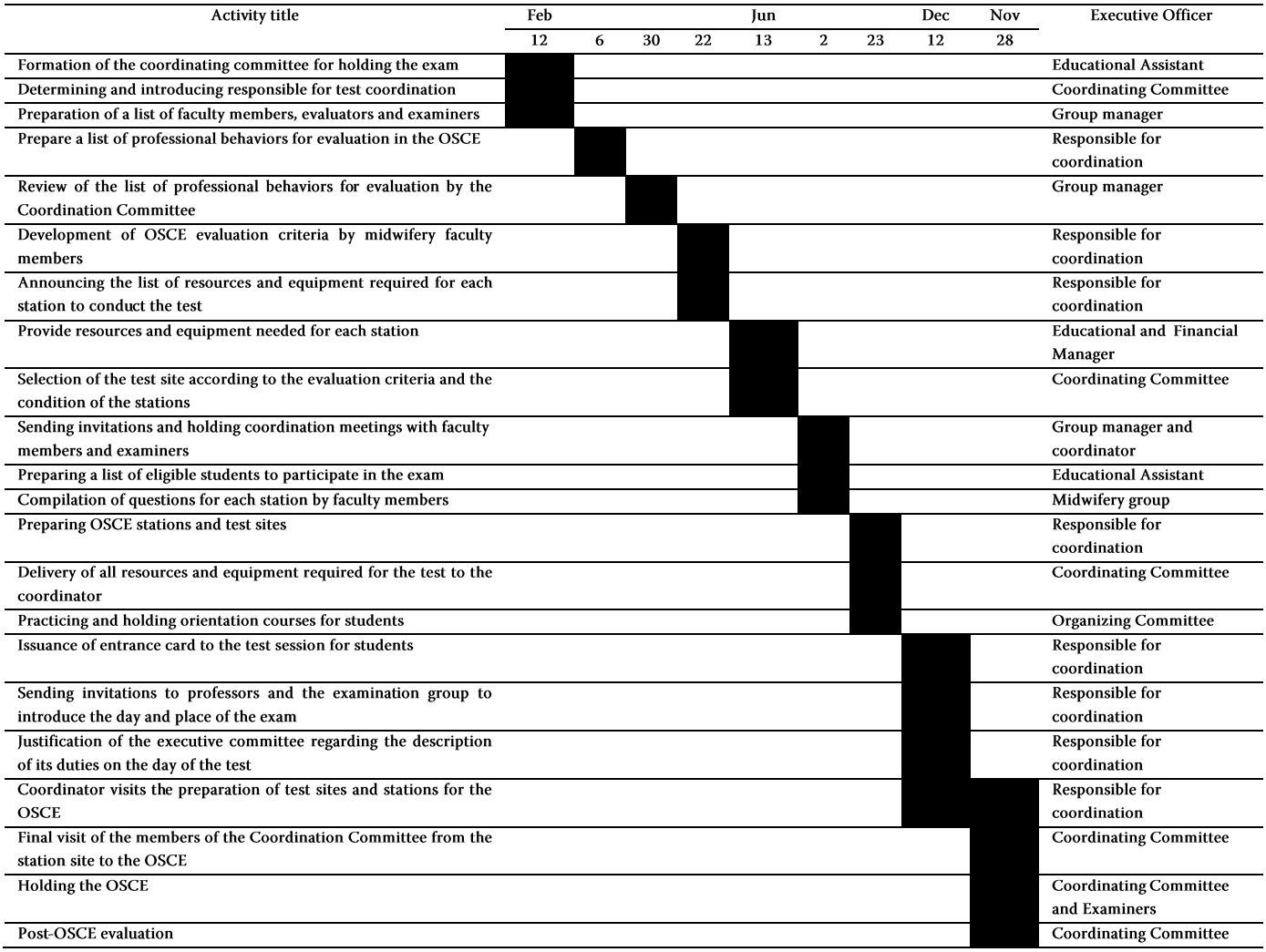

Figure 1: Gantt chart – OSCE design steps for midwifery students

Table 1: Basik Skills measured at OSCE for midwifery students

Num Station	Basic Skills
1	Client seeking admission
2	Interpretation NST
3	Midwifery history taking
4	Deciding about parturient women admitted to the maternity ward
5	Interpretation of FHR
6	Drawing and interpreting a maternity partograph
7	Non-pharmacological relief of labor pain
8	Examination of placentas and membranes
9	Correct determination of dilatation
10	Rehabilitation and determination of neonatal Apgar score
11	Perform maneuvers related to the baby

Results

In this study, the mean age of the students was reported to be 23.76±1.16 years. In addition, their GPA and OSCE score was 15.35±1.59 and 15.2±87.32, respectively (Table 2).

Table 2: Student Demographic Information

Number	Age (years)	GPA[1]	OSCE Score
1	24	17.91	17.7
2	23	16.5	17.05
3	24	16.5	15.1
4	24	16.38	16.5
5	24	16	16.1
6	22	15.5	17.3
7	24	15.08	12.04
8	23	15	16.7
9	23	15	17.15
10	23	14.05	14.07
11	24	14.03	16.3
12	27	14	15.6
13	24	13.65	14.4
Mean ± SD	23.76 ± 1.16	15.35± 1.59	15.87 ± 2.32

[1] Total grade point average

Data interpretation for qualitative assessment of OSCE showed that various items exist in evaluation by students. In general, however, these items were classified into four main categories and 11 subcategories (Table 3), including providing practical clinical evaluation in the OSCE with subcategories of: 1) OSCE, the ground for attention to clinical skills of students, and 2) awareness of achieving minimums in midwifery for students with OSCE; the necessity of using OSCE in clinical evaluation as an objective tool with subcategories of: 1) clinical evaluation based on student competence, 2) preventing the effect of lack of coordination on instructors' work in clinical evaluation; fair clinical evaluation with OSCE with subcategories of: 1) identical stations for all students, 2) assessing different aspects of students' skills, 3)

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preventing conditional evaluation; stressful nature of the exam with subcategories of: 1) familiarization with clinical evaluation goals through OSCE and stress, 2) effect of structuring of stations on stress in OSCE, 3) effect of the number of stations on stress in OSCE, 4) effect of time considered for each station on stress in OSCE. All classes and subclasses are described below along with statements of participants.

Providing practical clinical evaluation in OSCE

1) OSCE, the Ground for Attention to Clinical Skills of Students

According to the majority of students, the evaluation in the clinic and finally in the final exam is more based on the theoretical ability of individuals. In addition, little attention is paid to students' clinical skills and they do not understand their problems in different fields. *"The fact that our exam was not the same as other graduates and we were scored based on our practical work and not on memorized content was great"* (Student 3)

Students believed that the evaluation tool in this final was not similar to the conventional method that would be used during the apprenticeship and lacked the necessary objectivity. *"In the exam, we were scored based on our clinical skills, and teachers no longer gave a good score for students' practical work just because they received a good score in the theoretical area."* (Student 10)

2) Achieving minimums in midwifery for students with OSCE

Students repeatedly complained about the lack of receiving a favorable result in the evaluation system of professors despite their attempts to achieve maximum efficiency during education. In other words, midwifery students were dissatisfied with not learning the minimums of the field of midwifery since students are assessed as a midwife in the final exam and should be able to respond to any questions related to this area. However, since they failed to understand their failure during clinical evaluations, they felt that the things asked of them were not taught during the course. *"The exam helped me understand my problems and I attempted to improve my weaknesses. Now, I know my weaknesses and issues."* (Student 11)

"Whenever we asked the higher-year students about the final exam, they would say that some of the topics of the exam were not previously taught in classes." (Student 13)

The necessity of Using OSCE in Clinical Evaluation as an Objective Tool

The second category was created based on the necessity of developing a standard tool in the final evaluation, which included the following subcategories:

1) Clinical Evaluation Based on Student Competence

Students believed that clinical evaluation had previously been conducted in a general and comparative manner. This test, however, was able to distinguish skilled students from non-skilled students. According to the students, it was clear that the OSCE had reduced the concern for evaluation based on the personal taste of the trainers and the previous perspective. *"In OSCE, all professors give scores based on a checklist, which means that everyone receives a fair score."* (Student 2)

"Some of the teachers score us in comparison with each other in apprenticeship. I was really glad when I heard that the final exam will be taken differently and will be scored more rationally. To be frank, I was afraid to be compared to other students during the final exam and it made me happy to know that we will be scored based on what we have learned from the course." (Student 4)

"Sometimes a person's past encounters, such as a memory of a behavior or a job, affect the apprenticeship score. But I was relieved to realize that the OSCE would not be the same." (Student 9)

"A useful assessment is one that encourages weaker students and there should be a difference between them and me. What difference does it make to give similar grades to all students in the apprenticeship

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course? I thought that similar to the apprenticeship test, all students will be scored the same in the final exam regardless of their competency. Nonetheless, we were scored fairly in the OSCE." (Student 3)

"I would have never thought that I would get such an excellent score in the final exam. But it seems that one can know many things without realizing it. (Student 6)

The OSCE test assesses students more in terms of what they can do than what they know (29).

2) Preventing the Effect of Lack of Coordination on Instructors' work in Clinical Evaluation

Students complained about the diverse professional abilities of instructors in terms of clinical evaluation, declaring that OSCE raised no concerns in this regard. According to these individuals, coordination in the work of instructors was a necessity in apprenticeship and clinical evaluation. *"Instructors are not in harmony in terms of teaching techniques (e.g., prepping and draping), which increased ambiguity in the final exam. Meanwhile, the OSCE followed standard principles and instructors' preferences were no longer a priority."* (Student 2)

"They first divide us into groups. For some teachers, students are easy to score. Others may not give a perfect score that easily, which happened to me. I mean the act is the same but our scores are different only because of a difference of opinion. In OCSE, however, all groups are evaluated similarly and there is no bias in this regard, which decreased my concerns about the exam." (Student 6)

Fair Clinical Evaluation with OSCE

Observance of justice and fairness in evaluation and grading by instructors were among the issues that were frequently mentioned by students.

1) Identical Stations for all Students

From the students' viewpoint, one of the best advantages of the exam was similar stations and fairness in questions. They believed that this type of exam minimizes the effect of chance and personal opinions of instructors on their scores. *"I will not blame destiny or chance even if I do not pass the exam. In a traditional exam, however, all of those who fail the exam blame it on bad luck and getting hard questions."* (Student 1)

"All students did the same job at each station and were scored using the standard grading system." (Student 4)

2) Assessing Different Aspects of Students' Skills

From the perspective of students, since there are several stations in the OSCE and different aspects of students' skills are evaluated, the problem of lack of information could be resolved in the next stations, which is more rational and fairer, compared to the conventional method, and evaluates skills in a practical way. *"I was not that concerned with lacking a skill in a station and knew that I could make it right in the next stations."* (Student 6)

"In the past, I would only focus on performing childbirth in the final exam, but when I saw the OSCE, I was sure that the test will not be just about that process. In fact, I had to know many other things for the exam; otherwise, I would fail the exam of the final station." (Student 11)

3) Preventing Conditional Evaluation

Over the past few years, teacher assessment by students has become a conventional evaluation method, the results of which have been used in decisions such as promotion. Unfortunately, one of the negative aspects of this type of assessment is teachers' conservatism toward students. One of the issues mentioned by students was justice in the assessment of teachers. Overall, bilateral satisfaction should be achieved in the teacher-student relationship. *"Students misuse the teacher assessment opportunity. In case of the OSCE, however, no one blames teachers since the scores are precisely related to students' answers."* (Student 1)

"Some of the instructors were more serious during the exam and they ask questions in case of mistakes, which would help us realize our weaknesses." (Student 12)

Students' statements showed the inadequacy of the conditional assessment system. According to these

individuals, proper evaluation should be the basis for the correct teacher and student assessment.

Stressful Nature of the OSCE

A test environment leads to the secretion of catecholamines (i.e., adrenaline) by the autonomic nervous system. Since it is part of the physiology of the body, it is important for students to have a relative knowledge of stress physiology (44) and know that evaluation is only a part of their learning process. The stress level increases when a person feels threatened, and it might lead to psychological and physical manifestations including agitation, dry mouth, palpitation, and restlessness, which can be harmful at this stage (35). There was a difference in students' opinions before (in the briefing course two weeks before the test) and after (receiving feedback) the exam. Students' anxiety was explained, as follows:

"I would get easily agitated. This was a horrible experience for me. The stress I experienced during the test was similar to the stress one would experience in an emergency situation. It was like real dystocia was happening." (Student 7)

"During the briefing sessions, we were told that a method would not be developed if it were not in favor of students, which would reduce our stress. However, our stress always increased when we returned to the dormitory." (Student 3)

"The fact that we were supposed to take a test of the items separately from delivery decreased my stress level so much that I had no stress when studying for the exam." (Student 8)

"My friends and I did great in the delivery item because we were not concerned about other items in the maternity ward and only focused on this part of the exam. Therefore, we achieved an excellent score on the test." (Student 10)

A total of four sub-categories were expressed for stress in the OSCE:

1) Familiarization with Clinical Evaluation Goals through OSCE and Stress

Most students were familiarized with the objectives and instructions of OSCE during the briefing session and before taking the main exam. Nevertheless, there was a difference of opinion among students in this regard. *"With the OSCE method, I finally realized how to prioritize my skills and how to accurately do them after four years. I knew that I would have less stress if I was more familiarized with this area. I would definitely take the same exam for interns if I were a professor because it helps them understand their mistakes and have the opportunity to correct them."* (Student 9)

Even though briefing sessions were held for students two weeks before the exam, one of the main causes of stress during OSCE was expressed to be a lack of complete familiarization with the exam. However, the fact that the OSCE was held for midwifery students for the first time could justify their stress in this regard. *"Evaluation by OSCE increased my stress. Before the exam, I felt that I was really unlucky to take a different kind of exam, compared to previous semesters. I was really scared of the new exam mode, but I changed my mind after the exam and realized that it was in my favor to take this exam."* (Student 4)

"Attending briefing sessions should be obligatory to students. I did not attend them and I really missed out. I listened to the voices recorded during the session and really regretted not being able to attend it." (Student 6)

"The briefing session eliminated all ambiguities of OSCE." (Student 3)

2) Effect of Structuring of Stations on Stress in OSCE

In relation to the conditions and principles governing the stations, students considered the role of themes such as the structure and number of stations and the time allotted to each station to be effective in the stress experienced during the OSCE. Students were generally satisfied with the clarity of the information provided in the instructions on the type and manner of operation of each station, the strength of each station in measuring student skills according to the purpose of the station, specificity, and concept of checklist materials, and coordination of checklist

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materials with station objectives. The students believed that the composition of the stations had gone through a logical process. *"Each station had clear instructions, specifically since we were informed that the stations' orders were similar to a maternity ward. First, we would diagnose a parturient woman based on her ultrasound and test results and the process would end with our diagnosis. Then, we would take the history of another parturient woman and ask for exams or treatments. The test stages were similar to those experienced in a maternity ward, which is why we had no confusion about the process."* (Student 5)

In addition, they had lower stress levels because they were not concerned with making a mistake in the clinical setting during the test. *"It was just like the maternity ward, but I was less stressed about the process since I knew that I did not have to deal with the restlessness of the parturient woman or my mistakes would not endanger the fetus."* (Student 13)

3) Effect of the Number of Stations on Stress in the OSCE

The existence of different stations was another advantage from the students' point of view because different aspects of students' skills were evaluated. Moreover, their stress was reduced, and they believed that more stations would allow a more efficient student assessment. *"I would not be concerned with getting a low score in a station because I knew that I could make things right in the next station. Therefore, I was less anxious about the exam."* (Student 8)

Meanwhile, some students considered the low number of stations to be associated with more effective responses by professors and reduced stress levels in students. *"I was constantly worried about the next stations and wondered whether I could pass them successfully or not, which increased my stress and prevented me from focusing on the station I was already on."* (Student 7)

4) Effect of Time Considered for Each Station on Stress in the OSCE

Students mentioned the insufficient time allocation to each as a stress factor in the OSCE. *"Teachers should pass all stations one after another to realize how much pressure students go through during the exam."* (Student 7)

"I think it is not right to allocate equal periods to all stations. Some of them, including dilation determination, need a short time but others, such as diseases that require reading and analyzing the ultrasound and test results require more time." (Student 5)

"I think the time allotted to each station was appropriate, especially since there was an extra station at the end, which could be used to pass a station twice." (Student 12).

Table 3: The process of abstraction of main and sub-classes from the basic codes and statements of research participants

Main Classes	Sub- Classes	Basic Codes / Examples	Participant Statements / Example:
Providing practical clinical evaluation in OSCE	OSCE, the Ground for Attention to Clinical Skills of Students	Clinical assessment with OSCE based on student clinical skills instead of judgment based solely on individuals' theoretical ability	*In the exam, we were scored based on our clinical skills, and teachers no longer gave a good score for students' practical work just because they received a good score in the theoretical area."* (Student 10)
	Achieving minimums in midwifery for students with OSCE	Student bug fixes during the final by the OSCE and learning what to learn as a midwife	*"The exam helped me understand my problems and I attempted to improve my weaknesses. Now, I know my weaknesses and issues."* (Student 11)

Continue of Table 3: The process of abstraction of main and sub-classes from the basic codes and statements of research participan

The necessity of Using OSCE in Clinical Evaluation as an Objective Tool	Clinical Evaluation Based on Student Competence	OSCE's success in separating skilled and unskilled individuals in the clinic	*I thought that similar to the apprenticeship test, all students will be scored the same in the final exam regardless of their competency. Nonetheless, we were scored fairly in the OSCE."* (Student 3)
	Preventing the Effect of Lack of Coordination on Instructors' work in Clinical Evaluation	Clinical evaluation based on standard principles with the OSCE as a result of the coordination of evaluation by instructors	*"Instructors are not in harmony in terms of teaching techniques (e.g., prepping and draping), which increased ambiguity in the final exam. Meanwhile, the OSCE followed standard principles and instructors' preferences were no longer a priority."* (Student 2)
Fair Clinical Evaluation with OSCE	Identical Stations for all Students	Matching stations for all students	*"I will not blame destiny or chance even if I do not pass the exam. In a traditional exam, however, all of those who fail the exam blame it on bad luck and getting hard questions."* (Student 1)
	Assessing Different Aspects of Students' Skills	Ability to test clinical skills at different stations	*"I was not that concerned with lacking a skill in a station and knew that I could make it right in the next stations."* (Student 6)
	Preventing Conditional Evaluation	The student is not to blame teacher and the prevention of consideration by the teacher	*"Students misuse the teacher assessment opportunity. In case of the OSCE, however, no one blames teachers since the scores are precisely related to students' answers."* (Student 1)
Stressful Nature of the OSCE	Familiarization with Clinical Evaluation Goals through OSCE and Stress	The presence of students in the briefing session reduces stress on the test.	*"Attending briefing sessions should be obligatory to students. I did not attend them and I really missed out. I listened to the voices recorded during the session and really regretted not being able to attend it."* (Student 6)
	Effect of Structuring of Stations on Stress in OSCE	Reduce student stress due to the similarity of OSCE stages and stations with what is in the clinic	*"Each station had clear instructions, specifically since we were informed that the stations' orders were similar to a maternity ward. First, we would diagnose a parturient woman based on her ultrasound and test results and the process would end with our diagnosis. Then, we would take the history of another parturient woman and ask for exams or treatments. The test stages were similar to those experienced in a maternity ward, which is why we had no confusion about the process."* (Student 5)
	Effect of the Number of Stations on Stress in the OSCE	Decentralization of students in each station due to the multiplicity of OSCE stations	*"I was constantly worried about the next stations and wondered whether I could pass them successfully or not, which increased my stress and prevented me from focusing on the station I was already on."* (Student 7)
	Effect of Time Considered for Each Station on Stress in the OSCE	Increased stress in the OSCE due to lack of time at each station	*"Teachers should pass all stations one after another to realize how much pressure students go through during the exam."* (Student 7)

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Discussion

All aspects of the evaluation were discussed in four main categories, including: providing practical clinical evaluation in the OSCE, the necessity of using OSCE in the clinical evaluation as an objective tool, fair clinical evaluation with OSCE, and the stressful nature of the OSCE. Regarding the necessity of practical clinical evaluation, the students believed that the evaluation done in their apprenticeship was mostly theoretical in nature clinical cases were overlooked, which affected their clinical work. In a research by Khosravi et al. (2010), students emphasized the necessity of practical clinical evaluation (45), which is in line with our findings. According to research, achieving the minimums in the field of midwifery is unfavorable for students (25). In the current research, one of the concerns of students was realizing their weaknesses at the end of their education and losing the chance to learn. In studying the OSCE pretest results of midwifery students in Isfahan, they received a score below 50% in midwifery clinical questions (9). Regarding the necessity of using the OSCE as an objective tool in clinical evaluation, students claimed that lack of an objective tool in the final assessment lays the foundation for lack of evaluation based on students' competency, which results in improper assessment by instructors.

Students were clearly dissatisfied with this lack of attention and claimed that they had no such experience in the OSCE and they were no longer concerned with variety in the professional tastes of instructors. In a research by Elcigil et al. (2007), nursing students considered evaluation by clinical instructors as one of the most important problems experienced by these individuals. The main problem of students was related to their assessment by clinical instructors, different training methods of teachers, and their various experiences and criteria in assessing the students (47). In a study by Zamanzadeh et al. (2008), most of the participants in the study demanded the professors to reconsider the evaluation and scoring methods, which is consistent with our findings. One of the most important points in the OSCE evaluation was its fair scoring and the reduced role of chance in the results. All students agreed on the fact that they were interested in taking the test due to its fairness. Overall, fairness included classes such as similar stations for all students, examining various aspects of student skills, and avoiding conditional evaluation. According to While, some of the most important aspects of clinical evaluation are equality, stability, and fairness (48). In a research in Iran, students believed that the usual assessment was unrealistic and unfair and was dissatisfied with the general situation (49). In addition, they emphasized the observance of justice in the evaluation and the lack of effect of the mentality of the professors as evaluators of students (45). About 83.3% of students in the nursing school of Rasht declared that the OSCE was a fairer clinical assessment, compared to the conventional technique (37), which is congruent with our findings.

In the present study, conservative evaluation and retaliatory evaluation of students by professors were mentioned by the participants, which could affect the fair assessment process. In a research in Iran, teacher assessment by students was mentioned as one of the deterrents in fair and equitable evaluation, and despite the importance of this evaluation and its effect on the teaching-learning process, it is a matter of debate due to lack of standard education, biased approaches, bias and dishonesty of some students, and lack of respecting the position of teachers (50).

The OSCE is a challenging technique for the evaluation of midwifery students' clinical skills due to the extreme increase in the stress levels of these individuals (51). However, the fact that any kind of exam in any type of situation could be stressful somehow justifies stress in students. In a research on

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medical students of Kerman, there was no increase in students' anxiety levels during the test, and all of the participants were satisfied with the technique (38). In another study on 50 nursing students in Isfahan, the anxiety of nursing students was significantly reduced using the test anxiety questionnaire by Sarason in the OSCE test (25). In this regard, Allan et al. (2010) believed that OSCE could be the key to achieving clinical evaluation goals by reducing stress in students (52). Contrary to the mentioned results, Hodges et al. (1999), Brand et al. (2009) and Zartman et al. (2002) reported increased anxiety in students (53-55). In addition, the majority of dental students (78.6%) of Kerman University of Medical Sciences and 36 second-year midwifery students reported an increased stress level during OSCE clinical trials and evaluations (33-35). Nevertheless, in a research by Killingley and Dyson (2016), students believed that stress is necessary for adrenaline secretion since it prepares them for emergency situations in the clinic and they could be ready to deal with stressful situations (35).

In the present study, the difference between the post-test and pre-test opinions of students was related to the quality of the test, and any change in the opinions in the two parts before and after the test was due to differences in test quality and not the nature of students' opinions. The most important factor for high stress levels in midwifery students was a lack of complete familiarization with the goals of clinical evaluation through the OSCE and condition of stations. In our study, a few participants had insufficient knowledge of the OSCE process. Especially, since this was the first time to hold an OSCE for midwifery students, we received different feedbacks, which also could be a cause of stress in these individuals. According to the students, the effect of the structure of the stations, the number of stations, and the time allotted for each station were expressed in relation to the conditions related to the stations. The majority of midwifery students believed that the instructions of the stations were clear and reported the composition of the stations as excellent and good according to the predetermined purpose for the stations, which was also observed in other studies (36, 56). However, there was a difference of opinion among the students regarding the effect of the number of stations on the exam's quality. Most students considered a higher number of stations to have an impact on the improved quality of the test, which is in line with the results obtained by Faryabi (33). On the other hand, students were dissatisfied with the low amount of time considered for each station. Meanwhile, the standard time of the stations was determined based on a pilot and a research by Malakooti et al. (2018) (9). Contrary to the current research, the midwifery students of Isfahan were satisfied with the time allocated to each station. Based on the reasons mentioned by midwifery students in our study for stress in the final evaluation as OSCE. Providing appropriate conditions and facilities, increasing station time, and familiarizing students with the goals and instructions of the OSCE could reduce student stress during the test, which is confirmed by other studies (33, 35). This is specifically important since students considered OSCE to be stressful in some studies, and anxiety reduces the ability to deal with an exam situation. As such, a method should be developed to reduce anxiety. In this respect, holding sessions to introduce the OSCE method and several pilot tests by this method could reduce the anxiety of students (55, 57). Although stress and anxiety are some of the reasons for less use of OSCE in midwifery, it should be noted that this test-induced stress can be useful for coping and functioning properly in emergencies during clinical practice (34). In some studies, midwifery students claimed that the increased level of stress experienced during the scenario simulated in the OSCE was similar to that of a real emergency situation and considered the stress to be beneficial (35).

In the current research, undergraduate midwifery students had an overall positive attitude toward the

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OSCE. Most students believed that the OSCE was able to distinguish skilled individuals from unskilled students. In a research by Sauer et al. (2005), 86% of psychiatric students considered the OSCE to be suitable for assessing their clinical abilities (36). The results of some other studies also indicated the satisfaction of medical students and interns with the OSCE evaluation method (37, 38, 56, 58-62). However, Kolivand et al. (2020) reported that despite the efficiency of this test to evaluate clinical competencies and practical skills of students, it has not been able to assess all aspects (63). Due to its phenomenological qualitative nature, the current research has limited statistical generalization. However, the generalization of the results of the present research can be increased with the development of such researches in different parts of the country and the adaptations of those researches.

Conclusion

The students' life experiences obtained through interviews showed that their expectations regarding OSCE consisted mainly of the following: providing practical clinical evaluation in the OSCE, the necessity of using OSCE in the clinical evaluation as an objective tool, and fair clinical evaluation with OSCE. Due to the qualitative and interpretive nature of the study, this study has limited statistical generalization. However, given the importance of the OSCE evaluation method and its expansion in various levels and disciplines of medical sciences, especially midwifery, it is necessary to do more research to improve the quality and quality of learning, which is the mission of higher education. In order to continue similar research, it is recommended that future researchers conduct research on topics such as:

- Conducting similar research but with methods other than phenomenology, such as experimental, quasi-experimental, scientific-comparative and correlation methods

- Conducting a similar study on test methods other than the clinical test method with an objective structure, such as patient problem management (PMP).

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References

1.Akbari z. The need to develop and incorporate the soft skills (general) courses into the educational curriculum of medical sciences'students. *Iran J Med Educ.* 2018; 13(2):113-138.

2.Robles MM. Executive perceptions of the top 10 soft skills needed in today's workplace. *Bus Commun* Q. 2012;75(4):453-65.

3.Fleming V, Luyben A. Establishing a Master' s for Europe–A transnational model for higher education. *Midwifery.* 2016;33:52-4.

4.Montazeri S, Mousavi P, Pourghaumi S, Chaab F. Evaluate the Achieving Rate to Learning Minimums in Neonate, Child, Mother Health, Family Planning Units, and Midwifery Students' Viewpoint of Performance Obstacles at Ahvaz Jundishapur University of Medical Science. *Educ Dev Jundishapur.* 2015;6(2):122-30.

5.Carter AG, Creedy DK, Sidebotham M. Development and psychometric testing of the Carter Assessment of Critical Thinking in Midwifery (Preceptor/Mentor version). *Midwifery.* 2016;34:141-9.

6.Mitchell ML, Jeffrey CA, Henderson A, Glover P, Nulty DD, Kelly MA, et al. Using an objective structured clinical examination for Bachelor of Midwifery students' preparation for practice. *Women Birth.* 2014;27(2):108-13.

[DOR: 20.1001.1.22519521.1399.13.40.1.4]

[DOI: 10.52547/edcj.13.40.15]

7.Norozi s, mogadam f. Experiences of nursing student's clinical evaluation: a qualitative content analysis. *J Med Educ Dev.* 2016.11(2):134-145.

8. Billings D Mc, Halstead JA. *Teaching in nursing: A guide for faculty.* Chapter 10. 4 th.St. Louise, MO: Saunders Elsevier; 2012.

9.Malakooti N, Bahadoran P, Ehsanpoor S. Assessment of the midwifery students' clinical competency before internship program in the field based on the objective structured clinical examination. *Iran J Nurs Midwifery Res.* 2018;23(1):31.

10.Patrício MF, Julião M, Fareleira F, Carneiro AV. Is the OSCE a feasible tool to assess competencies in undergraduate medical education? *Med Teachr.* 2013;35(6):503-14.

11.Bromly L. The Objective Structured Clinical Exame, Practical Aspect. *Curr Opin Anesthesiol.* 2000;13(6):675-80.

12.Harden R. What is an OSCE? *Med Teach.* 1988;10(1):19-22.

13.Karam VY, Park YS, Tekian A, Youssef N. Evaluating the validity evidence of an OSCE: results from a new medical school. *BMC Med Educ.* 2018;18(1):313.

14.Abbasi H, Falsafinejad MR, Delavar A, Farrokhi NA, Mohagheghi MA. The Comparison of Two Models for Evaluation of Pre-internship Comprehensive Test: Classical and Latent Trait. *Iran J Med Educ.* 2013;13(3):167-78.

15.*Patrício MF. A Best Evidence Medical Education (BEME) Systematic Review on the feasibility, reliability and validity of the Objective Structured Clinical Examination (OSCE) in undergraduate medical studies.*Chapter 6. Universidade de Lisboa, Faculdade de Medicina 2012. 117-119.

16.Sloan DA, Donnelly MB, Schwartz RW, Strodel WE. The Objective Structured Clinical Examination. The new gold standard for evaluating postgraduate clinical performance. *Ann surg.* 1995;222(6): 735–742.

17.Muldoon K, Biesty L, Smith V. 'I found the OSCE very stressful': Student midwives' attitudes towards an objective structured clinical examination (OSCE). *Nurs Edu Today.* 2014;34(3):468-73.

18.Newble D. Techniques for measuring clinical competence: objective structured clinical examinations. *Med Educ.* 2004;38(2):199-203.

19.Attari A, Mir-sepassi GR, Taghva A, Bolhari J, Aminoroaia M, Hasanzadeh A. Validity and reliability of an objective structured clinical examination in psychiatry: A guided survey. *Iran J Psychiatry Clin Psychol.* 2007;13(1):41-8.

20.Huang C-C, Chan C-Y, Wu C-L, Chen Y-L, Yang H-W, Huang C-C, et al. Assessment of clinical competence of medical students using the objective structured clinical examination: first 2 years' experience in Taipei Veterans General Hospital. *J Chin Med Assoc.* 2010;73(11):589-95.

21.Troncon LEdA. Clinical skills assessment: limitations to the introduction of an" OSCE"(Objective Structured Clinical Examination) in a traditional Brazilian medical school. *São Paulo Med J.* 2004;122(1):12-7.

22.Furlong E, Fox P, Lavin M, Collins R. Oncology nursing students' views of a modified OSCE. *Eur. J. Oncol. Nurs.* 2005;9(4):351-9.

23.Norman GR, Neufeld VR, Walsh A, Woodward CA, McConvey GA. Measuring physicians' performances by using simulated patients. *J Med Educ.* 1985.

24.Luimes JD, Labrecque ME. Implementation of Electronic Objective Structured Clinical Examination Evaluation in a Nurse Practitioner Program. *J Nurs Educ.* 2018;57(8):502-5.

25.Moghimian M, Hashemi M, Kashani F, Karimi T, Atashi V, Salarvand S. Comparison the Effect of Objective Structured Clinical Evaluation (OSCE) with Direct and Indirect Supervision on Nursing Student's Test Anxiety. *J Nurs Educ.* 2015;4(2):1-8.

26.Barry M, Bradshaw C, Noonan M. Improving the content and face validity of OSCE assessment marking criteria on an undergraduate midwifery programme: A quality initiative. *Nurs Educ Pract.* 2013;13(5):477-80.

27.Moattari M, Abdollah ZS, Mousavinasab M, Zare N, BEYGI MP. Reliability and validity of OSCE in evaluating clinical skills of nursing students. *J Med Educ.* 2009. 13(3): 79-85.

28.Rasoulian M, Taghva A, Panaghi L, Zahiroddin A, Salehi M, Ghalebandi M. Qualitative Assessment of the First

Objective Structured Clinical Examination (OSCE) in Psychiatry in Iran. *Iran J Psychiatry Clin Psychol.* 2007;13(1):12-6.

29.Joolaee H, Alizadeh M, Fallahzadeh MH, Baseri A, Sayadi M. Evaluation of clinical skills of family physicians in Fars province by means of observed structured clinical evaluation. . *J Med Educ Dev.* 2010;7(2):93-9.

30.Farajzadeh Z, Saadatjoo S, Tabiee S, Hosseini M. Reliability and validity of OSCE in evaluating clinical skills of emergency medicine students of Birjand University of Medical Sciences. *J Birjand Univ Med Sci.* 2011;18(4):312-9.

31.Brosnan M, Evans W, Brosnan E, Brown G. Implementing objective structured clinical skills evaluation (OSCE) in nurse registration programmes in a centre in Ireland: A utilisation focused evaluation. *Nurs Educ Today.* 2006;26(2):115-22.

32.Franklin P. OSCEs as a means of assessment for the practice of nurse prescribing. *J Nurs Prescrib.* 2005;3(1):14-23.

33.Faryabi J, Farzad M, Sinaei N. Dental students' perspective on Objective Structured Clinical Examination in Kerman university of medical sciences. *J Med Educ Dev.* 2010;6(1):6.

34.Duffield K, Spencer J. A survey of medical students' views about the purposes and fairness of assessment. *Med Educ.* 2002;36(9):879-86.

35.Killingley J, Dyson S. Student midwives' perspectives on efficacy of feedback after objective structured clinical examination. *Br J Midwifery* 2016;24(5):362-8.

36.Sauer J, Hodges B, Santhouse A, Blackwood N. The OSCE has landed: One small step for British psychiatry? *Acad Psychiatry.* 2005;29(3):310-5.

37.Chehrzad M, Mirzaei M, Kazemnejad E. Comparison between two methods: Objective structured clinical evaluation (OSCE) and traditional on nursing students' satisfaction. *J guilan univ med sci.* 2004;13(50):8-13.

38.Jalili Z, Nouhi E, Ahmadpour B. Investigation of medical stagers and interns satisfaction on OSCE as a clinical skill evaluation method in Kerman University of Medical Sciences. *J Med Educ Dev.* 2005;2(1):18-24.

39.Polit D, Beck C. *Essentials of nursing research: Appraising evidence fornursing practice.* Wolters Kluwer/Lippincott/Williams Wilkins Health, Philadelphia, PA, USA; 2014.

40.Keley M, Nazari AM, Zahrakar K. The Experience of Pregnant Women about Sexual Relation during Pregnancy: A Phenomenological Study. *J Qual Res Health Sci.* 2018;7(3):240-51.

41.Fallahi A, Shahrbabaki N, Shahoei R, Aala F, Ahmadi S. Exploring the Components of Professional Ethics in Teaching, from the Perspective of Faculty Members in Iran. *Health Educ Health Promot.* 2019;7(2):1-8.

42.Morrow R, Rodriguez A, King N. Colaizzi's descriptive phenomenological method. *Psychol.* 2015;28(8):643-4.

43.Polit DF, Beck CT. *Nursing research: Principles and methods.* Lippincott Williams & Wilkins; Philadelphia, PA, USA; 2004.

44.Waugh A, Grant A. *Ross & Wilson Anatomy and physiology in health and illness* E-book: 13 th.Elsevier Health Sciences; 2014.

45.Khosravi S, Pazargadi M, Ashktorab T. Nursing studentsviewpoints on challenges of student assessment in clinical settings: A Qualitative Study. *Iran J Med Educ.* 2012;11(7):735-49.

46.Zamanzadeh V, Abdollahzadeh F, Lotfi M, Aghazadeh A. Assessing clinical education fields from the viewpoints of nursing and midwifery instructors in Tabriz University of Medical Sciences, 2006. *Iran J Med Educ.* 2008;7(2):299-307.

47.Elcigil A, Sarı HY. Determining problems experienced by student nurses in their work with clinical educators in Turkey. *Nurs Educ Today.* 2007;27(5):491-8.

48.While AE. The problem of clinical evaluation—a review. *Nurse Educ Today.* 1991;11(6):448-53.

49.Borhani F, Abbaszade A, Sabzevari S. Try for educational equity: Clinical evaluation process in nursing students, A Grounded theory study. *Bioethics J.* 2016;3(9):31-63.

50.Narenji F, Rouzbahani N, AMIRI FL. The effective education and evaluation program on clinical learning of nursing and midwifery instructors and students opinion

in Arak University of Medical Sciences, 2008. *J Arak Uni Med Sci.* 2010.12(4).103-110.

51.Jay A. Students' perceptions of the OSCE: a valid assessment tool? *Br J Midwifery.* 2007;15(1):32-7.

52.Allan H. Mentoring overseas nurses: barriers to effective and non-discriminatory mentoring practices. *Nurs Ethics.* 2010;17(5):603-13.

53.Hodges B, Hanson M, McNaughton N, Regehr G. What do psychiatry residents think of an objective structured clinical examination? *Acad Psychiatry.* 1999;23(4):198-204.

54.Brand H, Schoonheim-Klein M. Is the OSCE more stressful? Examination anxiety and its consequences in different assessment methods in dental education. *Eur J Dent Educ.* 2009;13(3):147-53.

55.Zartman RR, McWhorter AG, Seale NS, Boone WJ. Using OSCE-based evaluation: curricular impact over time. *J Dent Educ.* 2002;66(12):1323-30.

56.Saboury A, Vahid Dastjerdi E, Mahdian M, Kharazifard MJ. Dental residents' perceptions of Objective Structured Clinical Examination (OSCE) as a clinical evaluation method. *Shahid Beheshti Univ Dent J..* 2010;28(2):88-94.

57.Allen R, Heard J, Savidge M, Bittergle J, Cantrell M, Huffmaster T. Surveying students' attitudes during the OSCE. *Adv Health Sci Educ.* 1998;3(3):197-206.

58.Massomi M, Ebadi A. OSCE in Clinical evaluation of nursing students. *Educ Strides Med Sci.* 2010;1(1):19-27.

59.Alinier G, Hunt WB, Gordon R. Determining the value of simulation in nurse education: study design and initial results. *Nurs Educ Pract.* 2004;4(3):200-7.

60.Schoonheim-Klein M, Walmsley A, Habets L, Van Der Velden U, Manogue M. An implementation strategy for introducing an OSCE into a dental school. *Eur J Dent Educ.* 2005;9(4):143-9.

61.Shirinbak I, Sefidi F, Sarchami R. Comparison of traditional and Objective Structured Clinical Examination (OSCE) exams in terms of clinical skills assessment and attitudes of dental students of Qazvin dental school. *J Med Educ Dev.* 2014;9(3):67-74.

62.Awaisu A, Abd Rahman NS, Mohamed MHN, bux shbr, Nazar NIM. Malaysian pharmacy students' assessment of an objective structured clinical examination (OSCE). *Am J Pharm Educ.* 2010;74(2).

63.Kolivand M, Esfandyari M, Heydarpour S. Examining validity and reliability of objective structured clinical examination for evaluation of clinical skills of midwifery undergraduate students: a descriptive study. *BMC Med Educ.* 2020;20(1):1-7.

Nikkhah S, Alavi S H R. Phenomenological approach of the Live Experiences of the midwifery students on the final examination course the method Objective Structured Clinical Evaluation (OSCE). J Med Educ Dev. 2021; 13 (40):14-29