

The Comparison of Stressors in the Assessment of Basic Clinical Skills with Traditional Method and OSCE in nursing Students

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Abstract: Evaluation of clinical competency of nursing students in the achieved skills and judgment in this case, is one of the important matters of clinical education. Using the right method of evaluation plays a considerable role in getting the appropriate result and making the right judgment. The purpose of the present study is comparing stressors in basic clinical skills Evaluation with traditional and OSCE methods in nursing students. This is A comparative description study. Sampling was done through census. 25 students of the second term nursing whose practical course of fundamental of Nursing and skills evaluation had been done by traditional method and they had passed last term, were assessed at the end of second term through OSCE test. After taking the OSCE, the students filled the researcher made questionnaire with the purpose of examining their opinions, about stressors in both methods. The comparison of the result of the survey shows that the rate of stress while doing the techniques, stress of time limitation, confusion during the test, complication of the test method and encouraging students to active participation in learning in OSCE method was meaningfully more than the traditional method and the traditional evaluation was not considered as an encouraging method for active learning and fair and accurate evaluation of clinical skills of students. OSCE is recommended as one of the most appropriate methods in evaluation students' clinical skills because of assessing students fairly and equally and encouraging them to active learning although there was stress before and at the moment of doing the techniques. Also the program of familiarizing students with this method of evaluation during the term and some corrections in its performance seem necessary.

[Bagheri M, Sadeghnezhad Forotgheh M, Shaghayee Fallah M. **The Comparison of Stressors in the Assessment of Basic Clinical Skills with Traditional Method and OSCE in nursing Students.** *Life Sci J* 2012;9(4):1748-1752] (ISSN:1097-8135). <http://www.lifesciencesite.com>. 266

Keywords: Clinical evaluation; OSCE; Stress; Nursing Students

1. Introduction

Clinical education is one of the important and basic principles in nursing education which is accepted by all programmers and managers of educational programs of this field as the main part of nursing education. During this process the student achieves clinical experiences beside the patient while facing problems in the hospital (Moatari et al. 2007, Chehrzad et al. 2004).

Because of these assessing students' clinical competency of the achieved skills is one of the most difficult tasks of faculty members and health program educator (Noohi et al. 2008, Walsh 2009). According to the fact that evaluation is judgment process about the effectiveness of the individual's educational experiences through appropriate measurement, the method of doing it could improve the quality of teaching, learning, and training (Chehrzad et al. 2004). The results of studies show that evaluation methods in most clinical courses, besides not matching the educational goals are not effective enough in assessing clinical skills and performances

of students and although clinical skills and practice play the main roles in training different groups of medicine, the success of trainees of these fields depends on what they memorize to some extent (Noohi et al. 2008, Casey et al. 2009). During the past 40 years gradual evolution in different methods of clinical evaluation and the appearance of structured objective clinical evaluation as a method of assessing clinical competency in medical education is one of them. At present, this method has attracted considerable attention because of high level of reliability, credit and objectivity, content validity of the achieved skills, fairness, creating motivation for learning, and instructors' and students' satisfaction (Chehrzad et al. 2004, Rushforth 2007, Walsh 2009, Furlong et al. 2005, Selim et al. 2012). Different studies have confirmed that OSCE is a fair and objective method in assessing clinical skills (Nicol & Freeth 1998, Huang et al. 2007). According to this fact that the course of nursing skills and principles is one of the basic courses in clinical education of nursing students and learning techniques

before starting clinical training are of prime importance and students' satisfaction rate with the evaluation method can be effective in creating motivation in their learning, the present study was conducted and planned with the purpose of comparing stressors in two methods of clinical skills evaluation (traditional and OSCE) on second term nursing students of Mashhad Nursing and Midwifery School.

2. Material and Methods

This study was a comparative description which was conducted in Nursing and Midwifery School of Mashhad. Sampling was done through census. 25 students of the second term of nursing whose assessment of practical course of fundamental of nursing skills was done through traditional method in the first term and had passed the test, were assessed in the second term for the end-course evaluation of the practical course of Nursing Skills and Principles through OSCE method. The method of conducting the traditional method in the first term was as follows; students chose one of the trained techniques in the first term through random and performed it while the instructor observed. It is worth mentioning that as all the techniques were not equally complex, the time of performing it changed according to previous background of the student in the instructor's mind, the complexity of the technique, and etc. OSCE was performed as the assessment method of the trained skills in the second term which was as follows; first after determining the number and kind of station based on the trained techniques and available facilities (four ten-minute station of wound dressing, venous injection, Bladder catheterization and preparing medications), the examiner's and student's instructions and also the checklist of each station were provided. Then settings of the station were planned. All the students did the techniques equally and at the same time and were assessed by the observer on the basis of the checklist. After the conduction of the exam, the researcher-made questionnaire was filled by the students for studying and comparing the stressors. This questionnaire was studied by some nursing professors and its content validity was confirmed, and its reliability was also confirmed through test-retest method ($r=0.75$).

3. Results

Out of 25 participants 92% ($n=23$) were females and the rest were males. The average age of the students was 21 and most of the participants (72%) lived in Mashhad. The results of analysis the questionnaires of comparing the stressors in the two methods of traditional and OSCE were as follows; in

OSCE students were more stressed than the traditional method. Also in OSCE because of more number of stations than the traditional methods students were more stressed. Most of the students considered time limitation as one of the important factors in producing stress in OSCE method. But at the same time they mentioned that OSCE method provides equal conditions for assessing all the students while in traditional method, as the tested technique is chosen through random, chance is also involved, and according to the differences in the complexity and necessary efficiency for performing each technique the students expressed that this method does not provide equal conditions for assessing all the students. Most of the students considered OSCE more accurate than traditional method for assessing learning and skills of the students but expressed that it is more complicated than the traditional method. Encouraging students to active participation in learning is another advantage of OSCE, which was mentioned by most of the students. The comparison of the results of surveyed shows that the rate of stress while performing the techniques, stress originated from time limitation, confusion while taking the exam, complexity of the method of the exam, and encouraging the students to active participation in learning in OSCE method were significantly more than the traditional method (table 1). Although there is more stress in different aspects of OSCE, it seems that students are more satisfied with their achieved score in the traditional method. Also in another part of the questionnaire students' opinions about different specifications and station of OSCE were examined.

4. Discussions

Conducting an accurate and fair method of assessment which is appropriate with the expected clinical skills has always been concerned since the past (Nicol & Freeth 1998).

This study showed that totally the advantages and disadvantages of OSCE compared with the traditional method of assessing nursing students' clinical skills in students' opinion are as follows; OSCE is a more accurate, fairer, and more effective method in creating learning motivation for students but it is more complex and stressful than the traditional method. Time limitation is another negative specification of OSCE which causes a lot of stress among students.

Many et al (2007) studied medical students' satisfaction with OSCE method. The cases they studied included satisfaction rate with the content, atmosphere, performance method, environment, the effect of exam method on improving clinical skills, instructors' feedback at the time of exam, and total

Table 1: The Comparison of view point of students about effects two clinical evaluation methods

Frequency	Osce			Traditional			t	sig
	High	Low	None	High	Low	None		
Calmness before exam	44	28	28	12	56	32	-1.142	0.226
Stress while performing the techniques	72	28	0	16	60	24	-4.101	0.001
Stress for exam	64	32	4	40	44	16	-1.239	0.228
Stress from time limitation	72	24	4	12	32	56	-5.477	0.000
Confusion while taking the exam	56	36	8	16	28	56	-2.524	0.02
Accurate measurement of learning& skill	52	32	16	16	48	36	-1.865	0.076
Easy performing the techniques	44	36	20	28	36	36	-0.839	0.411
complexity of the method of the exam	32	44	24	32	32	36	-0.176	0.862
encouraging the students to active participation in learning	52	28	20	12	44	44	-2.160	0.042
Satisfaction of number of exam	52	44	4	20	52	28	-2.017	0.047

satisfaction of students with OSCE. The result of the survey showed that the majority of students were satisfied and expressed that its effect on improving clinical skills was pleasing (Huang et al. 2007).

In the present study most of the students expressed that OSCE, although being complex is on appropriate method of assessing clinical skills. The results of Abir et al.'s study (2012) with the purpose of studying the validity and reliability of OSCE in assessing nursing students' skills showed that students considered OSCE as a very positive experience but at the same time stressful. Also in this study it has been mentioned that OSCE is a valid and reliable method for examining clinical skills of nursing students and is more accurate than the traditional method which matches the results of the present study (Casey et al. 2009). Smith et al. (2012) compared different methods of assessing midwifery students' clinical skills, the results expressed that none of the assessment methods of clinical skills can provide complete information about the students' skills but OSCE method can be used as a very valuable method for assessing clinical competency of medical science students because of appropriate reliability in comparison to methods such as worksheet, clinical observance, and etc.(Smith et al. 2012). This result confirms credit and high accuracy of OSCE in assessing clinical skills of students which is confirmed by the current study as well.

In Marion et al.'s study (2009) as been mentioned that in contrast with various positive specifications of OSCE, for better usage of this method in assessing clinical skills of nursing students, it is essential that this method is used besides other

methods of assessment so that more accurate and favorable results will be found for judgment (Mitchell et al. 2009).

In Braznan et al.'s study ((2006), the effect of using OSCE on the self-confidence of nursing students and their point of view toward clinical practice was studied. The results showed that the students who got higher scores in OSCE assessment method had more self-confidence for doing clinical practice. But most of the students considered OSCE a stressful method for assessment. Specially students pointed the stress before the exam. Also they mentioned it was a meaningful and fairer method among methods of assessing clinical skills (Brosnan et al. 2006).

In the present study, students mentioned that they were more stressed before the exam in this method than the traditional method. It seems that unfamiliarity of students with OSCE has caused this stress which may be decreased by the repetition of using this method.

Also assessment through OSCE because of objectivity and practical application of the necessary techniques increases the self-confidence in using the techniques while doing clinical work of course .Although OSCE method is the most accurate and valuable method in assessing the clinical skills of medical sciences student but it should be remembered that this method is very expensive and this is one of the disadvantages of OSCE in some institutes which is an obstacle for its application (Palese et al. 2012).

Nolti et al (2011) studied 58 nursing students' opinions that were assessed by OSCE. The researchers had wanted the students to express the

best and worst characteristics of this exam. The results were as follows: the best specifications included the student being aware of the examiner's exact expectations, the student has the chance to express all aspects of his ability in performing a technique, and the student feels that everything is provided for him to express his knowledge. The worst parts included: stress and anxiety of the student before the exam. Other negative experiences mentioned by the students were not being able to control their feelings while taken the exam and express their knowledge, time limitation of the exam, and the type of behavior of the examiner, these were considered as the most important stressors (Nulty et al. 2011).

In the current study, time limitation and being stressed before the exam were the cases expressed as negative specifications by most of the students.

One of the other positive specifications of OSCE is its positive effect on medical sciences students' learning, in a way that John et al's study in 2002 have shown that the students who are assessed by OSCE besides being in a more favorable status clinical competency are more skilled in examining the needs of patients. In fact OSCE is one of the factors which can decrease the distance between theory and practice which is one of the oldest problems in medical sciences education (Walters & Adams 2002).

Of other effects of OSCE, the positive effect on communication skills of nursing students which is of prime importance for identifying and managing patients' needs can be mentioned. The results of Martin and Theodor's study in 2002 expressed that using OSCE can improve interpersonal relationships of nursing students (Anderson & Stickley 2002). This result matches the represent study's result which is OSCE causes more favorable social relationships with classmates.

5. Conclusion

According to the results of the present study and reviewing the related studied, it can be said that with better planning in performing OSCE and familiarizing the students with the conditions and limitations of OSCE through practice during the term, stressors could be decreased logically. OSCE can be used as an appropriate method in evaluation basic nursing clinical skills because of various positive specifications such as; accuracy and fairness, encouraging students to active learning and increasing clinical competency and self-confidence of students for clinical practice. Therefore for improving the quality of holding this exam in faculties, people in charge had better care more about holding, providing space and enough facilities.

Acknowledgements:

Finally the authors would like to express their gratitude to the director of the department and members of skill lab and students for all their support.

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10/5/2012