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### Nursing Student's views Toward Objective Structured Clinical Examination and Traditional Examination

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#### ABSTRACT

**Introduction:** Clinical education is an integral component of medical education program . Objective evaluation of clinical and professional competency is one of the most important aspects in medical students' clinical education. the present study was designed to determine to compare nursing students views toward objective structured clinical examination and traditional examination in Fasa nursing faculty. **Materials and method:** This is a quasi-experimental study. The 31 nursing students participated. Sampling performed according to census method and students divided to two groups. One group evaluated by objective structured clinical examination [OSCE] and the other evaluated by traditional clinical examination method. In order to assess students'views toward the evaluation methods a 15 item self-administered questioner based on Likert scale were completed at the end of each evaluation. Data was analyzed by SPSS software using appropriate statistical test. **Result:** The most desirable statement of traditional clinical examination group was the item of "the duration of evaluation time is suitable " and the most satisfying statement of Objective Structured clinical Examination group was the item of " In this evaluation student realized straight and weakness points and this method is fairly". Overall, 75 percent of students who were evaluated by Objective Structured clinical Examination [OSCE] method and 46.7 percent of students who were evaluated by Traditional clinical Examination method have positive views with the evaluation. **Conclusion:** It is concluded that Objective Structured clinical Examination [OSCE] can evaluate more practical skills and is better evaluation tool with comparison to traditional evaluation.

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### INTRODUCTION

Since evaluating the health is an inseparable part of nursing performance, improving the abilities of the students in medical skills has challenged the nursing professors [1]. In recent decades, the accepted methods have been increased for evaluating. There are different methods for evaluation [2 and 3]. It is expected that the evaluation used by the teachers should be fair and documentary and the students should be evaluated based on specified objectives to be evaluated based on it. Medical evaluation with objective structure is an evaluation based on performance and has these factors [4].

Objective structure clinical evaluation is increasingly used as a measurement tool [5] in which the students circle in some stations and do special procedures and their performance is measured by checklist [6 and 7].

In addition this method has enough reliability and validity and so has attracted scholars' attentions [8. 9 and 10].

The study of Hang and colleagues [2010] showed that OSCE is an effective method of evaluation for studying the clinical ability of the medical students [11].

Khorshid and colleagues [2007] concluded that OSCE is an objective process and 88 percent of the students believed that this method can evaluate all the areas [12].

Klein and colleagues [2006] also believed that OSCE is an objective method which is organized to understand the weak and strong points and increase their learning [13].

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So, OSCE is a reliable method which can create motivation in teachers and more efficiency in students. In addition, this kind of evaluation considers the important points needed by students.

Here, the researcher tried to use an objective method for evaluating the clinical skills of the students and its effect on the students views compared to traditional method.

#### *Research method:*

The present study is semi-experimental which is done based on comparing the opinions of nursing students in relation with the OSCE and traditional methods in Fasa nursing college.

Population of the present study includes all the students of third year of nursing which are studying in Fasa University. Population of the present study includes 31 nursing students at third year.

The researcher explained the participants about the objectives of the present study and then they participated in the study voluntarily. They were randomly divided into two groups; one with OSCE and the other with traditional method in surgical section of Valiasr Hospital in Fasa.

Data was collected using the questionnaire which was completed in the research units after the test. The questionnaire includes two parts. First part is demographic features and the second part includes 15 statements which are organized based on Likert scale from "completely agree, agree, relatively agree, completely disagree, disagree and relatively disagree".

The scores of all the statements [this method is time consuming and boring] was in order from completely agree [5], agree [4], relatively agree [3], relatively disagree [2], completely agree [0] and for statements 11 and 12 it is from completely agree [0], agree [1], relatively agree [2], relatively disagree [3], disagree [4] and completely disagree [5]. Since the maximum score of the questionnaire has been 75 and based on the above mentioned points, if the total score of the students have been higher than 75 percent of all the scores that is over 56, it is considered as positive and if it is lower than that it is considered as negative.

The researcher made a questionnaire [14 and 5] which was studied in terms of validity by the board member. In order to define the reliability of the questionnaire, Cronbach alpha was used and the reliability was determined based on the coefficient of  $r=0.84$ .

In order to evaluating the performance of the students, the testing group used the checklists which was approved considering content validity by the professors and in order to test the reliability of the checklists the correlational coefficient was determined for blood pressure as  $r=0.82$ , medicine preparing  $r=0.92$  and injecting through micro-set as  $r=0.86$ , calculation of the serum drops and amount of received serum as  $r=0.89$ , writing the recognition of the nursing,  $r=0.78$  and teaching the patient as  $r=0.75$ .

In medical evaluation was designed with 6-station objective structure and 5 to 10 minutes was devoted to each station and the time interval of the stations have been 30 seconds and the skills of the students was measured by the checklists in the stations.

In traditional evaluation, a medical skill was randomly determined. The evaluation case in traditional method as the speed, preparing the facilities, doing procedures and personal information, time devoted by the students have been 10 minutes. After finishing the test by the students, the complementary questionnaire was completed by the students. Data was analyzed by SPSS and using the descriptive statistics and inferential [chi-square].

Comparing the opinions of the students of evaluating the objective and traditional evaluati

#### *Results:*

Results of the study show that 87 percent of the participants have been female and 12.9 percent have been male. 48 percent of them are 20 years old and 32 percent of them have been 19 years old and 54.8 percent of them had the average of 14-16. The results indicated that the highest percent of them had the answer of completely agree about the clinical evaluation and the statement of "in this method the students understand their weak and strong points" with 56.3 percent and the highest percent of completely disagree with the statement of "this method is boring" is 6.3 percent.

So, the more response of completely agree is related to the statement of "the time devoted to this method id proper" had 40 percent and the highest answer is related to the statement "the precision is high" with 26.7 percent.

Comparing two groups showed that the results of the study showed that the highest positive opinions of the students [93.8 %] including the statement of " in this method the students understand their weak and strong points" which is related to the objective structure and the chi-square of which has shown a significant difference.

Related to the statement that "this method is fair" the students at clinical evaluation with objective structure devoted the highest ratio [93.8 percent] to themselves and chi-square showed significant difference.

In addition about the statement that " this method provides the chance for learning" and "the previous opinion of the teacher does not have any effect on the evaluation of the teacher" had the highest positive opinion of 87.5 percent and chi-square showed significant difference between two groups.

		Does not have positive opinion		Has positive opinion		Does not have positive opinion		Has positive opinion			
		percent	number	percent	number	percent	number	percent	number		
NS	X2	60	9	40	6	25	5	75	12	This method can evaluate a wide range of my learning	1
NS	X2	60	9	40	6	37/5	6	62/5	10	This method evaluates all my practical learning	2
NS	X2	40	6	60	9	31/3	5	68/8	11	Devoted time to this method is proper	3
P<0/05	X2	46/7	7	53/3	8	12/5	2	87/5	14	This method provides the necessary chance	4
NS	X2	73/3	11	26/7	4	37/5	6	62/5	10	This method reduces the stress and pressure	5
P<0/05	X2	66/7	10	33/3	5	18/8	3	81/3	13	This is an attractive method	6
NS	X2	46/7	7	56/3	8	43/7	7	56/2	9	This method has high precision	7
P<0/05	X2	66/7	10	33/3	5	18/8	3	81/3	13	The is no chance in this method	8
NS	X2	46/7	7	53/3	8	25	4	75	12	The stages of this method are well defined	9
P<0/05	X2	53/3	8	46/7	7	12/5	2	87/5	14	the previous opinions of the teachers about students do not play a role in this method.	10
P<0/05	X2	93/3	14	6/7	1	37/5	6	62/5	10	This method is time consuming	11
P<0/05	X2	80	12	20	3	25	4	75	12	This method is boring.	12
P<0/05	X2	53/3	8	46/7	7	6/3	1	93/8	15	This method is fair.	13
P<0/05	X2	80	12	20	3	31/3	5	68/8	11	This method subjective opinions of the teacher are reduced	14
P<0/05	X2	43/8	7	56/3	8	6/3	1	93/8	15	Students know their weak and strong points in this method	15

About the statement that “this is an attractive method” and “there is no chance in this method” the students of objective structure has highest positive opinions [81.3 percent] and chi-square showed the significant difference.

Highest positive opinions of the students was for the statements of “this method is time consuming” with 62.5 %, “this method is boring” with 75% and “this methods prevents the opinions of the teachers” with 68.8 percent shows the significant difference between two groups.

In total voting of the students about the evaluation of clinical and traditional method, 75 percent of the students in objective evaluation and 46.7 percent of the students with traditional method had positive opinions which should the significant difference between two groups.

#### Discussion:

Structured clinical evaluation is a key method in evaluating the nursing students [14, 15]. Moreover, based on the opinions of most of the professors, this test reflects the performance of the students better [16]. In new methods of teaching medication, tendency toward the student-centered methods have been more and more. So, it is suggested to collect and evaluate the feedbacks of the students in order to study the success and development of using this method [17]. So, the present study is done considering the high importance of learning clinical skills in nursing students to determine the opinions of the nursing students related to evaluation by clinical method with objective structure and traditional evaluation in Nursing College of Fasa.

In this study, it is shown that most of the students [75%] with objective structure were satisfied with this method and the results are in agreement with other studies. The studies done by Khosravi, 94 percent of the students used this method and indicated that this is more proper than other methods [2]. In the study by Berlin as the evaluation of the clinical method with objective structure, the students evaluated it as more valuable than traditional method [18].

In addition, in a study by Yoo, it is shown that the nursing students were more satisfied with the OSCE than the traditional method [19].

Alnieer in his study showed that 93% of the students considered OSCE as a proper method and believed that OSCE can be a valuable method [20]. Moreover, most of the students were satisfied with OSCE and considered it as valuable [21-22].

About the statement of “this method provides the learning chance”, 87.5 percent of the students of OSCE group agreed with it.

In this study done by OSCE method, it was shown that learning chances provide clinical skills [23, 8 and 6].

In the study of Abdulrasheed, 89 percent of the students stated that OSCE can precisely measure the cognitive and mental skills and 56.9 percent of the students stated that OSCE provides the chance for learning [24].

Results of the Shitu study showed that 60 percent of the students indicated that OSCE provides a good chance for learning which agrees with the results of the present study [25].

About the statement that “this method reduces stress and anxiety” 62.5 percent of the students in OSCE agreed with it. The results of the study by Bronsan showed that anxiety of the students reduces after the OSCE [5]. Students have reported low level of anxiety due to having experience in OSCE method with 81.3 percent positive opinion, while the study of Jafarzade showed that the stress of the students about OSCE and oral exam has been more than MCQ test [26].

In the study done by Furlong and colleagues, 90 percent of the students stated that evaluating by clinical method with objective structure caused increased tension in them [14].

Brand and colleagues studies the amount of tension of this test compared to other methods of evaluation in the dentistry students [27].

In the present study, most of the students considered OSCE fairer than the traditional methods in which the opinion of teachers is not effective. In the study of Khosravi and colleagues 94 percent of the participants had considered OSCE more valuable [2]. Dadgar has shown that OSCE is more proper for multiple choice and oral examination [28].

In addition, the study of Jafarzade, 85/7 percent of the students considered OSCE faire [26]. In the study of Pierre, two third of the students considered OSCE as a fair method [29] while in the study of Muldoon and colleagues only 15 percent of the students agreed with the fairness of OSCE [30]. Most of the students in this study believed that in OSCE method, most of the students understood more their weak and strong points so that in the study of Bronsan and colleagues, 91 percent of the students believed that feedback of OSCE increased their learning [5]. In addition in the study of Muldoon and colleagues concluded that in OSCE method, most of the students understood more their weak and strong points [30].

In the study of Abdul rasheed the students stated that OSCE shows their weak points and skills [24].

In this study the evaluation by OSCE had the highest positive opinion related to the statement of “the time devoted to this method is proper”. In the study of Jafarzade 80.6 stated that the devoted time in OSCE station is more proper [26].

In the study of Muldoon and colleagues, 46 percent of the students considered the time devoted to the station for doing the skill more proper [30] while in the study of Pierre and colleagues, students stated that they need more time for completing the skills in the stations [29].

#### *Conclusion:*

Although the OSCE method needs more cost and sources which should not be ignored, but due to the educational benefits of this method and satisfaction of the students, they can be neglected [14]. The results of the study indicated the superiority of OSCE compared to traditional method which has the ability for evaluation in different majors of medical science including the nurses. One of the limitations of this research is that considering the fact that 3 patients have been in each room, holding 6 stations in one room is not possible.

The research believed that this study can be a principle for future studies in the field of testing the nursing students so that it is suggested to do some studies including comparison of learning quality of the students in two method of OSCE and traditional method; comparison of OSCE and traditional method affects the practical learning ability of the students.

#### *Affiliation:*

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#### **REFERENCE**

- [1] Rentschler, D.D., J. Eaton, J. Cappiello, S.F. McNally, P. McWilliam, 2007. Evaluation of undergraduate students using objective structured clinical evaluation. *Journal of Nursing Education*, 46: 135-139.

- [2] Khosravi Khorashad, A., S. Salari, H. Baharvahdat, S. Hejazi, 2014. The Assessment of Undergraduate Medical Students' Satisfaction Levels With the Objective Structured Clinical Examination. *Iran Red Crescent Med J*. August, 16(8): e13088.
- [3] Christine Pilot, B.F., 2008. Study of an objective structural clinical examination for evaluating clinical competences. *ontology-head and neck surgery*, 138(2):143-148.
- [4] Ahmad, C., N. Ahmad, R. Abu Baker, 2009. Assessing Nursing Clinical Skills Performance Using Objective Structured Clinical Examination [OSCE] for Open Distance Learning Students in Open University Malaysia. *International Conference on Information ;Kuala Lumpur*, 12-13.
- [5] Bronsnan, M., W. Evans, E. Bronsnan, G. Brown, 2006. Implementing objective structured clinical skill evaluation in nurse registration programmes in a centre in Ireland. *nurse education today*, 26: 115-22.
- [6] Vandana, R., 2004. A comparative study of two evaluation technique in pharmacological conventional practical examination versus objective structured practical examination, *Indian journal of pharmacology*, 36(6): 386-8.
- [7] Mondal, R., S. Sarkar, M. Nandi, Hazra, 2012. A Comparative Analysis Between Objective Structured CLINICAL Examination [osce] and Conventional Examination As a Formative Examination Tool in Pediatrics in Semester Examination for Final MBBS Students. *Kathmandu university medical journal*, 10(1).
- [8] Selim, A., F. Ramadan, M. El-Gueneidy, M. Gaafer, 2012. Using Objective Structured Clinical Examination [OSCE] in undergraduate psychiatric nursing education: Is it reliable and valid?. *Nurse Education Today*, 32: 283-28.
- [9] Walsh, M., P. Bailey hill, I. Koren, 2009. Objective Structure Evaluation of Clinical Competence: An Integrative Review. *Journal of advanced nursing*, 65(8): 1584-1595.
- [10] Rushforth, H.E., 2007. Objective Structured Clinical Examination [OSCE]: review of literature and implications for nursing education. *Nurse Education Today*, 27(5): 481-90. Epub 2006 Oct 27.
- [11] Huang, C.C., 2010. Assessment of clinical competence of medical students using the objective structured clinical examination. *j of chin med assoc*, 73(11): 589-95.
- [12] Khursheed I, Y., Usman, 2007. J. Students feedback of Objective Structured Clinical Examination : a private medical collage experience. *J of Pak Med Assoc*, 57(3): 148-50.
- [13] Schoonheim-Klein, M.E., L. Habets, I.H. Aartman, C.P. Van der Vleuten, *et al.*, 2006. implementing an Objective Structured Clinical Examination[OSCE] in dental education: effect on students learning strategies. *J of Dental Education*, 10: 226-35.
- [14] Furlong, E., P. Fox, M. Lavin, R. Collins, 2005. Oncology nursing students views of a modified OSCE. *Eur J Oncol Nurs*, 9(4): 351-59.
- [15] Troncon, L.E., 2004. Clinical Skills Assessment: limitation to the introduction of an "OSCE" VIN at a traditional Brazilian medical school. *Sao Paulo Medical Journal*, 8-122(1): 7-12.
- [16] Schoonheim-Klein, M., A.D. Walmsley, L. Habets, U. Van Der Velden, M. Manogue, 2005. An implementation strategy for introducing an OSCE into a dental school, *Eur J Dent Educ*, 9(4): 143-9.
- [17] Duffield, K.E., J.A. Spencer, 2002. A survey of medical students' views about the purposes and fairness of assessment. *Med Education*, 36: 879-86.
- [18] Berlin, S., 2004. Objective structured clinical examination [osce]: A new examination technique in emergency medical education. *Notfall and Rettungsmedizin*, 7(4): 52-4.
- [19] Yoo, M.S., I.Y. Yoo, 2003. Effects of OSCE Method on Performance of Clinical Skills of Students in Fundamentals of Nursing Course. *Taehan Kanho Hakhoe Chi*, 33(2): 228-35.
- [20] Alinier, G., W.B. Hunt, R. Gordon, 2004. Determining the value of simulation in nurse education: study design and initial results. *Nurse Education Practice*, 4(3): 200-07.
- [21] Khattab, A.D., 2001. Rawlings B: Assessing nurse practitioner students using a modified objective structured clinical examination [OSCE]. *Nurse Education Today*, 21: 541-50.
- [22] Arnold, R.C., 2008. Walmsley AD. The use of the OSCE in postgraduate education. *Europ Journal Dental Education*, 12: 126-30.
- [23] Bagri, A.S., K.M. Zaw, M.N. Milanez, J.C. Palacios, S.S. Qadri, L.A. Bliss, B.A. Roos, J.G. Ruiz, 2009. Geriatric medicine fellows' experiences and attitudes towards an Objective Structured Clinical Examination [OSCE]. *Educational Gerontology*, 35: 281-93.
- [24] Abdurashed, A., F.W.A.C.S. Nasir, S. Ayodeji, F.W.A.C.S. Yusuf, O. Lukman, *et al.*, 2014. Medical Students' Perception of Objective Structured Clinical Examination: A Feedback for Process Improvement. *Journal of Surgical Education* Volume 71/Number 5 September/October.
- [25] Shitu, B., T. Girma, 2008. Objective structured clinical examination [OSCE]: examinee's perception at department of pediatrics and child health, Jimma University. *Ethiop J Health Sci*, 18(2): 47-2.
- [26] Jafarzadeh, A., 2009. Designing the OSCE method for evaluation of practical immunology course of medical students: in comparison to written-MCQ and Oral examination. *RMJ*, 34(2): 219-22.

- [27] Brand, H.S., 2009. Schoonheim-Klein M: Is the OSCE more stressful? Examination anxiety and its consequences in different assessment methods in dental education. *Eur J Dent Educ*, 13: 147-53.
- [28] Dadgar, S.R., A. Saleh, H. Bahador, H.R. Baradaran, 2008. OSCE as a tool for evaluation of practical semiology in comparison to MCQ & oral examination. *J Pak Med Assoc*, 58(9): 506-17.
- [29] Pierre, R., A. Wierenga, M. Barton, J.M. Branday, C. Christie, 2004. Student Evaluation of an OSCE in Pediatric at the University of the West Indies, Jamaica. *BMC Medical Education*, 4(22): 1-7.
- [30] Muldoon, K., L. Biesty, V.I. Smith, 2014. Found the OSCE very stressful': Student midwives' attitudes towards an objective structured clinical examination [OSCE]. *Nurse Education Today*, 34: 468-73.