

DEVELOPMENT A STANDARDIZED OSCE [OSCE-S] TO ASSESS STUDENTS' CLINICAL COMPETENCE IN FACULTY OF NURSING PADJADJARAN UNIVERSITY: FINDINGS OF THE FIRST STEP*

Kusman Ibrahim¹, PhD., Nursiswati¹, M.Kep., Sp.KMB., Urip Rahayu¹, M.Kep., Mamat Lukman¹, M.Si., Sari Fatimah¹, M.Kes

¹ Faculty of Nursing, Padjadjaran University

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ABSTRACT

The Objective Structured Clinical Examination (OSCE) has been widely used in medical education and showed its validity and reliability to measure the students' clinical competence. In nursing education, the use of OSCE was also reported in the literature. However, it was still unclear about the gold standard to implement OSCE in nursing education since nursing has special characteristics which may difference with medical. Faculty of Nursing Padjadjaran University has also adopted OSCE as a tool to measure students' competence in clinical nursing skills. Nevertheless, there was no well standard to conduct OSCE that resulted potential bias in evaluation the students' competence. This action research study was aimed to develop standardized OSCE to measure the students' clinical competence in nursing. Data were collected through focus group discussion, interview, and observation, and analyzed qualitatively. Findings from the first step of the study highlighted some important issues regarding limitations and insufficiencies in OSCE implementation. The findings suggested for the next steps to strengthen the human resources involved in OSCE and formulate a well-organized OSCE system.

Key words: Development, OSCE, Students, Nursing

INTRODUCTION

The Indonesian National Education System has mandated the education institutions to provide an equality, quality, and relevancy education to all Indonesian people. It is reached by effective management strategies to produce graduates who are able to cope their future challenges both in national and international levels (Directorate General of Higher Education Ministry of National Education Indonesia, 2008). Nursing education, as an integrated part of health professional education, is challenged to be able to produce graduates with high quality and competence to meet health care workforce market. The graduates of nursing education are also challenged to demonstrate critical thinking and effectively contribute in solving the complexity of health problems imposing the society.

Indonesia is a country showing multi complexity in health care problems which may imply to the difficulties in reaching the Millennium Development Goals (MDGs) by 2015 (World Bank, 2008). The primary potential problems may come from the explosion of population, maternal-infant and child mortality rate that remain high, and the difficulties to control both the infectious and non-infectious diseases. It is also coupled by the unequal distribution of health care professionals throughout the country with regard to the quality and quantity.

Nursing education has been adopting and implementing the curriculum-based competency which emphasize on the student centered learning approach. It is expected to provide a conducive learning environment for the students to develop their knowledge, skills, and attitudes which are necessary to perform their professional tasks in their future life. In doing so, the nursing education need to be equipped by the valid and reliable tools to measure the students' competence. Objective Structured Clinical Examination (OSCE), developed by Harden *et al* (Harden & Gleeson, 1979; Ross, et al., 1988), is an examination method that has shown its validity and reliability in measuring clinical competences among

medical students. Furthermore, the OSCE gained more popularity and adopted in other health professional educations including nutritionist, pharmacist, and nursing (Mitchell, Henderson, Groves, Dalton, & Nulty, 2010).

The OSCE become a valid and reliable tool if it is implemented truly in accord to the requirements of the OSCE standard. Faculty of Nursing, Padjadjaran University, has adopted and OSCE as a measurement tool to measure the students' clinical competences in conjunction to the implementation of competency-based curriculum since 2007. However, at least according to our observations so far, the design and implementation of the OSCE were still showing some deficiencies. For example, there was no practical guideline how to conduct OSCE, and it was quite often one examiner examined two students at two stations in the same time. Standardized check list forms and standardized patients were also had been not well developed. These situations may result inappropriate measurement of the clinical competence of the students.

The main aim of the study was to develop a model of standardized OSCE (OSCE-S) to assess the clinical competences of nursing students in the Faculty of Nursing, Padjadjaran University. The main research question was "how to develop an assessment model of standardized OSCE to assess the students' clinical competences in Faculty of Nursing, Padjadjaran University?" The implementation of the study was divided into five steps including understanding situation (reconnaissance), developing a tentative model, tryout the tentative model and observation, reflection and revision, and outcome (definitive model). Considering the limited space, the current paper presents only the findings from the first and the second steps.

METHOD

The action research was used as design for the study. It is appropriate method to address a change in the practical setting. The change was established based on their own motivation of stake holders supported by available resources to improve situation or create new ways in working (Webb, 1989). Kemmis and McTaggart (1988, p. 5) defined action research as a form of collective self-reflective inquiry undertaken by participants in social situations in order to improve the rationality and justice of their own social or educational practices, as well as their understanding of these practices and the situations in which these practices are carried out. Holter and Barcott (1993) pointed out four characteristics of action research, namely; collaboration between researcher and practitioner, solution of practical problems, change in practice, and development of theory.

Data were collected through focus group discussions (FGD), interviews, and observation. The FGD and interview were audio recorded, then transcribed. Field notes were generated from observations. Two FGD were carried out; the first with the representative of students, and the second FGD with the representative of lecturer, instructor, and lab administrator. FGD was lasting about 1.5 to 2 hour for each. Nine students, nine lecturers, and one lab administrator participated in the focus group discussions. The students were selected from batch 2007, 2009, and 2010. In addition, interviews were conducted to complete or as follow- up to the particular issues came up from the group discussion. Therefore, interview was more unstructured and could be said as non-formal interview with lasting about 20 to 30 minutes. Two interviews were carried out along with the first and second steps of the study; with the lab administrator and the OSCE expert. Data collection and data analysis were conducted simultaneously; data were analyzed using a guideline given by Morse and Field (cited in Polit & Hungler, 1999) including comprehending, synthesizing, and re-contextualizing.

Study setting

The study took place in the Faculty of Nursing, Padjadajaran University (Unpad). Unpad is a leading university in Indonesia, particularly in West Java Province. Formerly, nursing education in Unpad began in 1994 and organized as a Nursing Program under the Faculty of Medicine. To advance the nursing education in Unpad, Nursing was separated from Faculty of Medicine and become Faculty of Nursing based on the Rector's decree No.1020/J06/Kep/KP/2005, and approval from the Director General of Higher Education No.1827/D/T/2005. Currently, the Faculty of Nursing Unpad offers Bachelor Program in Nursing (S.Kep), Profession Program (Ners), and Master Program in Nursing (M.Kep), with student body of 1,083 and 53 lecturer.

FINDINGS

Findings from focus discussions, observations, and interviews reflected the real situation of implementation OSCE in FoN Unpad which will be presented into three perspectives; (1) students' perspective as examinee, (2) examiners' perspective, and (3) perspective of supportive staff.

Students' perspective

Students who participated in group discussion freely expressed their opinion as well as experience involved in OSCE. Their comments could be summarized in the following points:

- (1). OSCE is same with the conventional practicum examination
- (2). Stress and confuse as the first time involve in the OSCE, and sought information from friend
- (3). "Lucy factor", particularly related to who is the examiner, and readiness of equipment

- (4). Difference between skill taught in lab demonstration and when being examined
- (5). Inconsistence in technical regulation, time management, and scheduling
- (6). Limited in facility and health care equipments resulted lack opportunity to do self-rehearsal
- (7). "Pretending" in some points of skill examination lead to "confusing" in the real situation of clinical practice
- (8). The difference perception among examiners regarding particular procedure resulting less objectivity in marking
- (9). "Annoying" as two students were examined by one examiner at the same time
- (10). OSCE can help the students to improve their skills up to 80%

Examiners' perspective

As examiner, participant shared their experience, impression, and opinion related to OSCE implementation. Their comments could be summarized as the following:

- (1). The current OSCE is an simple OSCE, still fragmented, not as it should be
- (2). No special preparation such as training, workshop, etc, the knowledge about OSCE is mostly gained from friend personally
- (3). "Dualism" (*Ngajegang, mendua*) due to insufficient number of examiner
- (4). Unsatisfied with the OSCE currently applied because many thing was lacking
- (5). No standardized evaluation form (including scoring system) and procedure (SOP)
- (6). Variation in scoring and do it manually resulting problematic to determine final score for each students, as consequence the result of examination couldn't be published immediately after examination
- (7). Secret of examination question could not be kept
- (8). Need of guideline and political support from Faculty administrator

Perspective of supporting staff

Supporting staff in this study refers to the lab skill administrator and lab assistance. Their role and function in the OSCE implementation is crucial, therefore their opinion, thought, and experience in implementing OSCE were valuable to understand the whole process of OSCE implementation. Their comments could be summarized as follow:

- (1). Lack of coordination and unclear who responsible most in the OSCE implementation lead to unwell-organized OSCE implementation
- (2). Unclear the criteria of students who eligible for taking exam and no firm exam regulation cause difficult to control the student mobility in the examination room
- (3). Limited lab equipments and facilities inhibited the opportunity of students to practice their skills before taking exam

DISCUSSION

Findings from the first step of implementation of the study highlighted some problems underlying the implementation of OSCE. The difference perception and lack of understanding among faculty members about the OSCE coupled by limited resources has resulted implementation of OSCE deviated from what it should be. It may impact to the validity and reliability of the OSCE which also ultimately influence to students' competence. Mitchell, et al (2010) suggested that although there are wide variety of assessment tasks to which OSCE has been applied, there is still necessary to explore how and where they may best be used within nursing education.

Students' perspective regarding the implementation of OSCE highlighted the important facts related to impact of un-well managed OSCE on the level of stress or confusing among students. Senior students who have previous experience involve in conventional practicum exam, expressed that there was no much differences between

OSCE and the conventional one. The difference just on the simultaneous session and time was more restricted. They did not really care about the name and the process of OSCE, but they consent the negative impact, especially to their final mark that they might get, if there was no standard of evaluation form and examiners hold different perception on means of evaluation. The findings were slightly different with previous study found that students viewed OSCE as a fair assessment, useful experience, cover wide range of knowledge, and minimize chance of failing (El-Nemer & Kandeel, 2009).

Examiner is one of the major components in conducting OSCE (McCoy & Merrick, 2001). Their role and function in evaluation students' performance during OSCE is imperative. Therefore, examiners are expected those who have qualification in clinical area that being examined. In addition, the examiners must also have good understanding about the process of OSCE and the evaluation forms used in the examination. The findings of this study showed that the examiners felt lack of preparation, insufficient knowledge related to OSCE, and overload students which made one examiner had to examine two students at two stations at the same time. They also recognized that no standardization of OSCE procedure including scoring system was often problematic in determining final score of the students. It could be a threat to the validity of the OSCE results. Whereas, the earlier study found that examiners felt the OSCE was more valid than the previous assessment which was on a single skill basis, or un-integrated model (Ryan, Stevenson, & Hassel, 2007).

Successful OSCE cannot be separated from the contribution of supporting staff, which is particularly lab administrator and his/her staff. Lab administrator and lab assistance have responsibility to assure that examination room and all needed equipments were ready to use. They also have task to manage the room in order to be comfortable, safety, and conducive for running examination. The study found that supporting staffs

highlighted the lack of coordination among involving parties in OSCE implementation. Thus, no firm exam regulation, unclear the criteria students who allowed getting exam, and limited lab equipments and facilities were also identified as contributing factors to the unwell-organized OSCE. The findings indicate the need to consider, evaluate, and well-design model of OSCE in order to reach the validity and reliability of the results. Previous study documented that well-designed OSCE may be a powerful tool to evaluate the clinical competence in nursing and that it may also be an effective facilitator for learning to perform clinical skills in nursing (Ross, et al., 1988).

CONCLUSION AND RECOMENDATIONS

The findings from the first step of the study reflected the current situation of OSCE implementation in the Faculty of Nursing, Padjadjaran University. OSCE has been adopted and implemented for years. The benefits of having OSCE in improving students' skills were documented in this study. However, some insufficiencies and problems were remaining exist and highlighted by participants. The findings indicate suggestion on the need to have well-design OSCE and well-trained staffs in order to reach the good validity and reliability of OSCE results.

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