

Analysing the Relationship of Mini Student Oral Case Analysis (SOCA) Test and Mini Objective Structured Clinical Examination (OSCE) with The National Doctor Professional Competency Test in Indonesia

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The national competency test for doctor professionalism competencies is an indicator of doctor expertise. This study aimed to analyse Association between Mini Student Oral Case Analysis (SOCA) Test and Mini Objective Structured Clinical Examination (OSCE) and The National Doctor Professional Competency Test. The research method is experimental with the use of a cross-sectional study which was conducted in 2019 among 70 students of the medical study Program in Universitas Muhammadiyah Jakarta who were taking the second block. Data was collected using standardized test instruments based on Indonesian professional medical organizations. Results showed there is no relationship between the results of the mini SOCA test with the results of the National CBT (UKMPPD). There are only 1 of 5 stations that are significantly related to the national OSCE test (Humerus Fracture Station). Conclusions for this study are that the mini SOCA and OSCE tests have not been optimal in assessing early national doctor professional student competency testing. The mini OSCA and OSCE tests have not been optimal in assessing early national doctor professional student competency test.

Key words: *SOCA, OSCE, doctor professional, competency test.*

Introduction

Learning assessment is used to evaluate the success of student studies. It also can assess several components of the learning process or curriculum, such as program evaluation and learning processes, evaluation of institutional policies, evaluation of teaching and administrative staff, and evaluations of the evaluation system itself (Linn et al., 2009; Nitko, 1996). Medical education has several forms and types of assessments with the ultimate goal of the assessment being to provide information and assurances to stakeholders or the public as doctors, that doctors produced by educational institutions have the competencies and qualifications needed by the community. Social responsibility and quality assurance of graduates override the evaluation process in medical education through a structured and continuous process, starting from the academic stage of education, and the education / clerical/professional stage, so that the form of learning assessment in medical education has an integrated assessment system. A structured and inspired assessment system has been implemented by global medical faculties based on the Miller pyramid model, evaluation is based on the level of student achievement (Downing and Yudkowsy, 2009).

Dent and Harden (2009) stated that the most important formative assessment activities are feedback activities on students, so students can know the level of achievement of clinical knowledge and skills that have been learned or carried out. Feedback activities can help lecturers or program organizers to evaluate if student achievement as determined by learning objectives, so that lecturers or program organizers immediately make relevant changes to the learning process with the intention that students achieve the learning goals expected by the institution (Dent and Harden, 2009).

The final stage of the evaluation process for a medical student, in order to be declared a doctor and work within the profession, is passing the Competency Test for the Medical Profession Program (UKMPPD) based on the Decree of the Director-General of Higher Education number 27/DIKTI/Kep/2014. The graduation is used to obtain a competency certificate to initiate processing of the Registration Certificate (STR) and Practice License (SIP). The Indonesian Doctor Competency Test (Uji Kompetensi Dokter Indonesia) which has been changed to UKMPPD (Uji Kompetensi Mahasiswa Program Profesi Dokter) has been carried out since 2007 only focuses on cognitive assessment, whereas to assess the level of skills or psychomotor and professionalism, an assessment is carried out in the form of Objective Structured Clinical Examination (OSCE) (Surat Keputusan Dirjen; Boursicot and Roberts, 2005; Shumway and Harden, 2003; Permatasari and Syafruddin, 2016; Syafruddin and Permatasari, 2017; Syafruddin and Permatasari, 2015). This study aimed to analyse the association between Student Oral Case Analysis (SOCA) Test and Objective Structured Clinical Examination (OSCE) Tests in miniature form for The National Doctor Professional Student Competency Test.

Methodology/Materials

This study used a cross-sectional design to determine the relationship between the mini OSCE tests of each station with the national OSCE test, and also the relationship of the mini SOCA test results with the national CBT results. This research was conducted at the Faculty of Medicine and Health, Universitas Muhammadiyah Jakarta in March 2019. The study population was even semester students in the year 2018-2019 of the school year. Samples were medical students who took part in Block 2 selected by proportional random sampling of 70 students. The dependent variable is measured by a mini OSCE and SOCA test by preparing a station for OSCE and SOCA which is carried out in the CSL examination room. While the independent variables UKMPPD results were obtained, data were analyzed using a chi-square test (level of significance = 0.05). The mini OSCE test consists of 5 stations, with 1 resting station, and 1 station for the mini SOCA.

On the Mini OSCE exam the skills are tested on the station:

1. Dermatitis
2. Post-Traumatic Stress Disorder
3. Gastrointestinal Hepatitis A
4. Shock
5. Humerus Fracture

For the mini SOCA exam, 1 problem was made:

1. Dengue Fever
2. Urinary Tract Infections
3. Diabetes Miletus
4. Hypertension

Results and Findings

According to data presented in Table 1 below, it can be seen that the results of the mini OSCE exam at station 1 passed by 88.6%, passed at station 2 by 85.7%, passed at station 3 by 91.45%, passed at station 4 by 85.7%, and graduated at station 5 by 64.3%. While the mini SOCA exam results of students who passed as much as 47.1%. On the National OSCE results of students who were declared not passed as many as 22.9% and as many as 77.1% graduated, while the National CBT results of students who were declared as not passed were 28.6% and passed as much as 71.4%.

Table 1: Univariate Analysis

Variable	N	%
Station 1 Dermatitis		
Failed	8	11.4
Pass	62	88.6
Station 2 Post Traumatic Stress Disorder		
Failed	10	14.3
Pass	60	85.7
Station 3 Gastrointestinal Hepatitis A		
Failed	6	8.6
Pass	64	91.4
Station 4 Shock		
Failed	10	14.3
Pass	60	85.7
Station 5 Humerus Fracture		
Failed	25	35.7
Pass	45	64.3
Results of mini SOCA test		
Failed	37	52.9
Pass	33	47.1
Results of National OSCE test		
Failed	16	22.9
Pass	54	77.1
Results of National CBT		
Failed	20	28.6
Pass	50	71.4

Table 2: Association between results of mini SOCA with results National CBT (UKMPPD)

Results of mini SOCA test	Results of National CBT				Total		p-value	OR (CI 95%)
	Failed		Pass					
	N	%	N	%	N	%		
Failed	17	45.9	20	54.1	37	100.0	0.101	2.656 (0.952-7.408)
Pass	8	24.2	25	75.8	33	100.0		

Based on Table 2 above, it can be seen that students who did not pass the mini SOCA exam also did not pass the national CBT, indicated by 45.9%. From the results of the analysis, there is no significant relationship between the results of the mini SOCA exam and the results of student National CBT (p-value 0.101).

Table 3: Association results of mini OSCE test of 5 station with results of national OSCE test (UKMPPD)

Results of Mini OSCE test	Results of national OSCE				Total		p-value	OR (CI 95%)
	Failed		Pass		N	%		
	N	%	N	%				
Station 1							0.689	1.467 (0.317-6.792)
Failed	3	37.5	5	62.5	8	100.0		
Pass	18	29.0	44	71.0	62	100.0		
Station 2							0.473	1.686 (0.422-6.731)
Failed	4	40.0	6	60.0	10	100.0		
Pass	17	28.3	43	71.7	60	100.0		
Station 3							0.661	0.440 (0.048-4.015)
Failed	1	16.7	5	83.3	6	100.0		
Pass	20	31.3	44	68.8	64	100.0		
Station 4							0.473	1.686 (0.422-6.731)
Failed	4	40.0	6	60.0	10	100.0		
Pass	17	28.3	43	71.7	60	100.0		
Station 5							0.029	3.692 (1.264-10.786)
Failed	12	48.0	13	52.0	25	100.0		
Pass	9	20.0	36	80.0	45	100.0		

In Table 3 above it can be seen that the mini OSCE test results of students who did not pass Station 1 and did not pass the national OSCE exam was 37.5%. From the results of the bivariate analysis, there was no significant relationship between the results of the mini OSCE station 1 test with the results of the national OSCE exam on students (p-value 0.689). Students who did not pass station 2 and did not pass the national OSCE exam were at 40.0%. From the results of the bivariate analysis, there was no significant relationship between the results of the mini OSCE station 2 test with the results of the national OSCE exam on students (p-value 0.473).

Students who did not pass station 3 and did not pass the national OSCE exam, rated 16.7%. From the results of the bivariate analysis, there was no significant relationship between the results of the mini OSCE station 3 test with the results of the national OSCE exam on students (p-value 0.661). Students who did not pass station 4 and did not pass the national OSCE exam were determined to be at 40.0%. From the results of the bivariate analysis, there was no significant relationship between the results of the mini OSCE station 4 test with the results of the national OSCE exam on students (p-value 0.473). Students who did not pass station 5 and did not pass the national OSCE exam were reflected with 48.0%. From the results of the bivariate analysis, there is a significant relationship between the results of the



mini OSCE station 5 test with the results of the national OSCE exam on students (p-value 0.029).

From this research, the results show that there is no meaningful relationship between student mini SOCA exam scores and national CBT scores. Of the 5 mini OSCE exam stations, only 1 station is related to the student national OSCE exam results, namely station 5 of the Humerus Fracture. From the results of qualitative research based on focus group discussions, it can be concluded that the assessment of students using CSL (Clinical Skill Lab) and CBT has not yet fully an embedded competence in the skills and knowledge of medical education students.

CSL and CBT exams have not yet been fully explored as a tool to predict whether students in the future will be capable or successful in one clinic or the next stage. While the OSCE and SOCA exams not only assess student skills but also student knowledge, in reality, OSCE and SOCA which can assess student competencies have not become regular activities at the FKK UMJ institution. The mini OSCE and mini SOCA exams can be combined at the same time because the assessment is on line and explores such skills as in dealing with hypertension and student knowledge about hypertension. The obstacle faced by institutions to run mini OSCE and mini SOCA regularly is that there is no existing policy from leadership and this is necessary because the policy will affect human resources, commitment to these activities and the resultant budget.

Conclusion

The results of the mini OSCE and mini SOCA tests in general have not been able to show a positive correlation with the passing of competency tests for students in the medical profession program. Prediction models of the mini OSCE and SOCA tests also have not been formed properly, because of the 5 stations tested, there is only 1 station, the Humerus Fracture Station opposed to the passing of the national OSCE test.

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