Background

Nowadays, assessing clinical skills competence by Objective Structured Clinical Examinations (OSCEs) in undergraduate medical education has been used worldwide. However, the passing score that is provided by standard setting may vary between institutions, especially in small scale OSCE.

For several years, our institution has implemented undergraduate small scale OSCE with arbitrary criterion reference standard setting. This passing score defines the same in every station, students should have at least 80 point (from 100 of maximal score) to pass every station in OSCE. According to curriculum evaluation, students highlighted the fairness of OSCE related to the high passing score they should reach for all clinical skills. Institution also found that this passing score could not differentiate the degree of student’s competency.

Hence, we initiated to use one of the norm reference criteria called Borderline Regression Methods (BRM) as standard setting in our small scale OSCE. This method identified the passing score by a regression correlation between actual mark in checklist and global performance.

This study set out to explore the student, observer and items writer’s perception about BRM as standard setting in undergraduate OSCE.

Methods

This study was done in the six stations small scale OSCE of Emergency Medicine Block. Before the OSCE began, we informed the difference method of setting standard to the observers and students. Two different questionnaires were completed by 24 observers during the exam and 153 students after the passing score was published. Focus group discussion also developed for more information.
**Result**

The passing score with BRM was vary in each station, described the difference of difficulty of each station.

![Graph: The Difference Passing Score between Arbitrary and BRM](image)

The student and observer perception:

There was positive result on student perception especially the fairness (87%); provide their actual capability (79%), and encourage learning (66%).
Observers agreed (76%) that this method could interpreted the real student performance.

Focus group discussion (observers and item writers):
- Some observers worried about the difference definition of borderline.
- The item writers noticed that BRM’s standard could decrease the institution standard.
- In positive way, the standard of BRM could possibly evaluate the learning process.

Discussion
In designing the assessment tasks, standard or passing score should be defined in order to separate candidates who are competent and not competent. In small scale OSCE with arbitrary passing score (80 point of standard in all stations), we found some problems such as the different judgment standard of pass performance that can cause the perception of unfairness of OSCE among students; and also the borderline candidates could possibly pass the OSCE based to institution’s consideration. Those problems could possibly decrease the credibility of our OSCE result.

According to that situation, we initiate to transform our method in standard setting with the BRM. In BRM, we found the positive alteration such as:
- The observer can judge the candidate by two different scales, such as the objective checklist and global performance. With these scales, the observer can increase their objectivity.
- The borderline student will be defined pass or fail also in objective way, by correlate the checklist and global performance score.
- The result of passing score in small OSCE with BRM vary in each station, this could describe the difference difficulty in station OSCE. By this result we can also evaluate the process of learning in each station.

Conclusion
BRM has been positively acceptable for students and observers. This method also could have a positive impact in evaluation of the process of learning. Further psychometric evaluation will strengthen the evidence of this result.

Take-home massages
The BRM in OSCE could influence student learning, increased the objectivity, and evaluated the learning process.

References


3. Pierre RB; Wierenga A; Barton M; Branday JM. (2004) Student evaluation of an OSCE in paediatrics at the University of the West Indies, Jamaica. BMC Medical Education 4:22.
