

Does the design and development of objective structured clinical examinations by undergraduate students improve their learning and assessment communication skills about medicines?

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Background and Aims: Objective Structured Clinical Examinations (OSCEs) are versatile multipurpose evaluative tools that can be utilized to assess health care professionals in clinical setting including communication skills and ability to handle unpredictable patient behaviour, which usually are not included in the traditional clinical exam¹. To design and perform OSCEs by students may improve their knowledge of pharmacology as well as their arguing and planning capacities and their communication skills during their assessments and during their interaction with patients². We aim to evaluate the impact of designing, developing and presenting OSCEs by undergraduate students on the Pharmacology course of Medicine and Podiatry Degrees in their learning of medicines' uses and their assessment's communication skills.

Summary of work and outcomes: A two-year prospective study in which students were invited to voluntarily design and perform an OSCE was carried out. Each group (4 students max) reports a clinical situation/problem involving medicines for 10 min max. Clinical histories, cameras, a mobile-phone's video editor, photos, actors, dolls, simulators or whatever they may use was allowed. The job of each group was supervised and helped by a teacher. The students were invited to present their work to the rest of the class. After each OSCE performance the other students of the class were encouraged to ask questions. After all the OSCEs performances, the students voluntarily answered a satisfaction survey.

Discussion: This study improved the learning of pharmacology and medicines uses of undergraduate students on the Pharmacology course of Medicine and Podiatry degrees (N=135, 56.7% female, 20±2.9 years old) and allowed us to make 35 OSCEs showing a clinical situation or a clinical problem. The students did not spend a lot of time making the OSCEs (29.7±6 h). Spoken participation and communicative skills of the students in class increased as they were developing the OSCEs. The percentage of students satisfied with this way of studying pharmacology was 92.7%. OSCEs development by students increased their percentage of success in the final assessment in both OSCEs-related and OSCEs-non-related questions (+8.6% and +7.7%) vs OSCEs-non-participant students.

Conclusion: Objective Structured Clinical Examinations (OSCEs) designed and performed by undergraduate students on the Pharmacology course of Medicine and Podiatry Degrees improved their knowledge about medicines use and their communication skills during the assessment and during their interactions with real patients.

References:

1. Abdelaziz AL et al. (2015). *Medical teacher*. **38** (3):272-279.
2. Setyonugroho W et al. (2015). *Patient education and counseling*. **98** (12): 1482-1491.