Title

How can fair and objective assessment of communicative and interpersonal skills of nursing students be ensured?

Authors'

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Study Aim

The aim of this study was to investigate whether fairness and objectiveness can be maintained in an OSCE on interpersonal communication skills with a large student population for the entire duration of the assessment.

Methods

The establishment of the new Center of Advanced Simulation at the University of Genoa has led to the development and implementation of skills laboratories and OSCE for nursing students. Advanced medical simulation centers are the ideal setting for workshops that focus on gestural or communication skills within the curriculum of students of the medical professions. Video- and audio-recording students' performance during laboratory sessions provides added value for both formative and certifying evaluation. High fidelity simulation environments give students the opportunity to generate, develop and enhance their communication skills and confidence in their own abilities without worrying about compromising patient safety.

An OSCE was run to evaluate the communication and interpersonal skills of all the students enrolled in the first year of the Nursing Program at the University of Genoa. A station was set up simulating a hospital room.

The assessment was based on role-play with SPs. Nurses with acting experience played the role of patients.

Eight scripts were designed to meet core competence requirements for students who have completed their first year at the School for Nursing. Each script focused on giving information to and communication with different kinds of patient: a patient who needs to monitor urinary output, a patient with impaired mobility, a patient with personal hygiene problems, a patient with eating difficulties, a patient with drinking difficulties, a patient with hypertension.

The first section of the scripts dealt with the learning objectives that the students had to demonstrate having achieved, i.e. appropriate behaviour when interacting with patients.

The central part of the script focused on the patient's history and main health problems. Data were divided into solicited and unsolicited information. Questions and considerations for the SPs to ask or make during interaction with the nursing students were also included.

The final part of the script covered the mandate given to the student, which described in detail the objectives to be achieved as well as the main information about the student's role (first year student), the setting (hospital unit simulated in the role-play), the reason why the patient had been hospitalized and the length of the hospital stay, along with data on the clinical status of the patient and reported on the nursing chart.

Learning objectives were divided into 5 behaviors for examiners to observe: communicating relevant information, using patient-appropriate language, checking whether information has been understood, active listening, and reassuring the patient through advice that is relevant to the clinical situation at hand. Student performance was evaluated using validated assessment grids with four

criteria and descriptors for five levels of communication behaviors (expected and observed). The rating scale ranged between -2 to +2, and a score was given to each communication behavior associated with the criterion at hand. The criteria included were: terminology (+2 immediate answer to questions, -2 terminology too detailed/not appropriate); listening (+2 checks whether SP has understood, -2 hears but does not listen); attention (+2 gives feedback to patient, -2 does not pay attention either verbally or behaviorally); clarity (+2 information is correctly understood, -2 communication is not clear and information is not precise). Descriptors were used to allow uniform assessment.

The acceptable performance level was set at +2, equivalent to a 18/30 mark. The highest performance level was set at + 8, equivalent to a 30/30 mark.

Assessment panels were made up of 7 members appointed by Program Coordinators. Overall, the panels included half of the senior nurse tutors who are in charge of day-to-day educational and training activities at the eight University of Genoa campuses where the students were enrolled. All the elements at play in the evaluation process were carefully designed, defined and shared with all the examiners to ensure assessment validity and reliability.

The station was manned by two assessors - one from the same campus as the students and one who did not know them - who both evaluated each student. This approach was chosen both to improve objectivity and to introduce a facilitating element for the students. The final mark was the average of the marks given by the two assessors.

These conditions were maintained throughout the exam sessions.

In accordance with current evidence, the Program Coordinators decided that each student's performance at the station should last 5 minutes. A number of studies have shown that the duration of OSCE stations (between 5 and 10 minutes) and their number can vary, and no association has

been found between the length of individual stations and their number . Most studies describe 5-minute assessments for stations evaluating communication and interpersonal skills.

Video- and audio-taping offered **examiners** the opportunity to further evaluate students by watching them on a large screen in a separate room while also closely monitoring the time allotted to each student for performance at the station.

All study data was uploaded onto an Excel database and processed using SPSS vers.15.1.

Results

All the students enrolled in the first year of the Nursing Program at the University of Genoa and who sat the summative assessment of clinical competenciesparticipated in the study (n=421). Distribution among the different campuses was as follows: Campus A - 19%; Campus B - 12%; Campus C - 14%; Campus D - 10%; Campus E - 14%; Campus F - 17%; Campus G - 7%, and Campus H - 7%.

Forty percent of the students were male and 60% were female. Most students were in the 19-23 years age group (75%); 15% were in the 24-28 group, 7% in the 29-33 group, and 3% in the ≥ 34 group.

Twenty OSCE sessions were run, with a daily average of 21.1 students (SD 5.68). The daily promotion index shows random distribution over time.

Analysis of the scores given on the assessment grid by each of the two assessors for each student shows that the non parametric correlation index was statistically significant (Spearman's rho = 0.993; $p \leq 0.001$).

Analysis of the marks given to students by each of the assessors showed that the non parametric correlation index was statistically significant (Spearman's rho = 0.985; p ≤ 0.001).

Conclusions

This study describes how effective the OSCE method was deemed in ensuring fairness and objectivity of the summative assessment of clinical competencies. among a large population of nursing students. Using an OSCE to assess students' communication and interpersonal skills was an appropriate approach to address the aims of the study. Close attention to organizational details, drafting scripts that matched the students' core curriculum, using validated assessment instruments, the presence of SPs and sharing the entire assessment process with the panel of assessors, were crucial to achieving the results of the study.

Keywords

OSCE, advanced simulation centre, evaluation of communication and interpersonal skills, standardized patient, simulation, inter-valuation

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