Objective assessment of practical skills in finalist veterinary students

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Introduction

The use of objective assessment practices has become an international norm, and Objective Structured Clinical Examinations (OSCEs) are used to assess practical skills as part of the final examination of BVSc students at the University of Pretoria.

The BVSc programme includes one multi-species and multi-discipline module on Core Veterinary Practice, which together with one module on Elective Veterinary Practice comprises the final 18 months of experiential training (Irons et al., in press). Theoretical knowledge is assessed separately using Computer-Based Assessment (CBA) (Mostert and Holm, 2017).

Materials and Methods

A list of 40 practical skills to be assessed is set up by the examination committee in consultation with two external moderators. Examiner training on skills assessment is provided in workshops, following which rubrics for OSCEs are developed through a four-stage revision process. Rubrics include critical errors which are considered to result in failure of the procedure. Ten OSCEs are assigned to each of four species- or discipline-based panels, and made available to students two months before the examination. Before the day of the examination, students are randomly assigned an examination order in pairs, and instructed to arrive at the central meeting room (cafeteria) prior to the start of the examination.

These pairs of students then draw cards so that each student attends two of the four panels: either Small Animals or Equines, and either Production Animals or Pathology and Veterinary Public Health (VPH).

Following this each student draws a sealed OSCE rubric from the assigned panels and hands it to the examiner at the panel. The examiner provides the scenario and the student is given 1 minute to prepare, and 15 minutes to complete the task.

Results and conclusions

In November 2016, 125 students were examined using this procedure. The examination was completed in 2½ days. A total of 276 panels were examined with 20 failures and a mean grade of 85.5% (95% CI 83.3% - 87.6%), independent of whether it was a student’s first, second or ancillary panel (P > 0.37). Mean objective and subjective examiner scores per question examined are presented in the table. Practical examination grades were not correlated with CBA grades (coefficient 0.08, P = 0.38).

It is concluded that a range of practical skills can be assessed accurately and independently of theoretical knowledge using only two OSCE panels per student.