Introduction of Objective Structured Practical Examination (OSPE) assessments into Honours Medical Sciences courses
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Introduction

Objective Structured Practical Examination (OSPE) assessments have been a core element of assessment in clinical courses for many years. They enable assessment of theoretical, practical and problem-solving skills at multiple stations.

Marking criteria are published in advance and are clearly structured so all students should receive the same test and interaction with different examiners. It was hoped that this would be a suitable method of assessing our Honours medical sciences students in their practical and communications skills, thus enhancing their employability and preparing them for their upcoming Honours projects. Given the large size of the Honours class, this method was seen to be efficient, allowed students to show their skills without lengthy written work, and allowed rapid assessment with timely feedback.

Six stations, each assessing a mixture of different practical, theoretical, communications and problem-solving skills were developed (see Figure 1). Students were introduced to the assessment tasks and layout during an all day revision/rehearsal session one week before their scheduled OSPE, and were given extra tuition to help them address any identifiable weaknesses in their performance. During their actual assessment, students moved round each station in turn and completed each task.

Over one hundred students were assessed over a two day period using this system, which allowed greater objectivity and consistency than traditional written work. OSPE stations were also reusable for different classes and could be tailored to suit different disciplines.

Outcomes & Conclusions

• Students reported they found the process “a bit stressful” as they had to prove they knew how to perform specific tasks/skills, but that they found it worthwhile preparation for upcoming practical work and employment opportunities.
• Staff felt it was a useful way of assessing practical skills, problem-solving, numeracy, communications skills and other graduate attributes WITHOUT large amounts of paperwork.
• Students reported that it made them start thinking more about what skills would be expected of them in their future employment, and also made them consider where their strengths and weakness lie.
• The OSPE can be adapted to suit different disciplines, locations and for students with special requirements (e.g. disability).
• The OSPE allows us to improve assessment of communications skills – something that is sometimes forgotten in traditional science-based curricula.
• Students also reported that they felt such a mixture of assessment methods better allowed them to display their full range of knowledge, skills and abilities.
• Staff hope to improve next year by using iPad technology to rapidly assess students at some stations and provide them with faster feedback.
• A strong support team is required to set up such assessment activities. We are extremely grateful to Alison Davidson and Elaine Lyall of the CLSM Teaching Technical Team who were heavily involved with the development of the OSPE in Medical Sciences. Prof G Nixon and Sonia Watson also were involved in conducting the assessments.

Figure 1: Schematic of laboratory layout with six assessment stations. Students start at different stations and move round in sequence.

Figure 2: Perceived advantages and disadvantages of this assessment method.

Advantages
- Can assess a range of graduate attributes not easily accomplished via traditional assessment methods
- Students often try much harder to succeed as they cannot hide behind written work or group work
- Easily adaptable for different skills, disciplines and institutions
- Easy and easy way to assess practical skills in large groups of student

Disadvantages
- Need backup plans
- Some nervous students need reassurance if previously reliant on written work
- Planning and organisation are key to success
- Some anxious students need reassurance if previously reliant on written work
- Need backup plans