

## REPORT OF ROYAL COLLEGES OF PHYSICIANS (UK) EVALUATION OF PERFORMANCE ASSESSMENT METHODS FOR SPECIALIST REGISTRARS IN MEDICINE

### Introduction

Assessment of the performance of doctors has become an important issue as a result of high profile cases and the redesign of medical training. Following the launch of the new curricula, the Colleges developed three methods of performance assessment to be assessed in a pilot study. Currently information presented at the RITA is based on subjective judgements. Outcomes of valid, reliable and feasible methods of performance assessment are needed to inform the RITA process.

The three methods investigated in the pilot study were:

**Assessment of the clinical encounter-** mini-CEX (clinical evaluation exercise) this method was adapted from the existing mini-CEX in use for the assessment of trainees in the USA.

**Assessment of procedural skills-** Directly Observed Procedural Skills (DOPS), this method was designed and developed by the Colleges. For the purpose of the pilot DOPS forms were developed for four specialities only (Cardiac catheterisation, endoscopy, neurophysiology studies and renal biopsy)

**Assessment of behaviours by colleagues-** 360 degrees (360<sup>0</sup>) assessment. The Colleges developed its own 360<sup>0</sup> assessment tool, using 'raters' from four groups (Allied health professionals, doctors, nurses and secretarial/clerical staff)

### Purpose of the study

The purpose of this study was to assess the reliability and feasibility of these methods when used for the assessment of SpRs, from all medical specialities, in the UK.

### Recruitment and study set-up

The study ran from June 2003 until April 2004. In each participating unit one consultant acted as Local Study Coordinator (LSC), being responsible for recruiting, study administration and acting as the sole point of contact with the College. All participants were anonymous by virtue of a code. The study was voluntary and all participating SpRs signed a consent form.

There were three study groups;

- Mini-CEX and 360<sup>0</sup> assessment
- DOPS and 360<sup>0</sup> assessment
- Mini-CEX, DOPS and 360<sup>0</sup> assessment

We aimed to recruit 100 SpRs in each group. Pre-made study packs, containing all relevant paperwork for each SpR, and study handbooks were sent to the LSC.

### Study process

Each SpR was asked to do six to eight mini-CEX, six to eight DOPS and one 360<sup>0</sup> assessment over a four month period. SpRs were responsible for setting up all assessments and returning all completed paperwork.

For their 360<sup>0</sup> assessment each SpR was rated by 20 colleagues and asked to chose five 'raters' from each of the following four groups: allied health professionals, clerical or secretarial staff, doctors and nurses. They were also asked to do a self-assessment. All 'raters' remained anonymous.

At the end of the study period each SpR had a meeting with their Educational Supervisor to get feedback from all their assessments. The 360<sup>0</sup> data was presented, as a range and mean for each item, so SpRs could not identify individual responses.

Each trainee and Educational Supervisor completed a qualitative feedback questionnaire for each method they had participated in. These forms asked specific closed questions (yes, no or don't know) about each method and provided an area allowing for free text feedback.

## RESULTS

### Participants

There were 23 medical specialties represented by the Joint Committee of Higher Medical Training (JCHMT) at the time the study was set up. The following declined to participate in the trial (the number in brackets represents percentage of total UK SpRs training in that specialty): Clinical Pharmacology (1.17%), Haematology (8%), Infectious Diseases and Tropical Medicine (2.7%), Metabolic Medicine (0.02%), Nuclear Medicine (0.18%). All other specialties participated. All regions in the UK were represented in the study.

Table showing study participation:

Method	Number of SpRs who agreed to participate	Number of SpRs who actually completed assessments
Mini-CEX	247	128 (52%)
DOPS	177	59 (33%)
360 <sup>0</sup> Assessment	331	230 (69%)

Analysis of the feedback forms for all three methods showed that the majority of both consultants and trainees felt they were practical, fair and helpful to the SpRs development. For mini-CEX and DOPS consultants were able to act objectively as assessors, without a conflict of interest, if they were responsible for the care of the patient, the trainee was being examined on.

### Mini-CEX

The median time (in minutes) to complete the assessment was 15 with a mean of 18.46 and 5 and 6.8 respectively for giving feedback. In order to achieve acceptable levels of reliability, for training, each trainee must be assessed by at least two judges per year, each assessing two cases for four years in total. Mix of case complexities and case settings (ward vs outpatients) were confounding factors.

The most important theme to come up from the free text comments was that 46% of both consultants and SpRs expressed their concern that this method was time consuming, disruptive to clinics and needed considerable administrative work.

### DOPS

The time taken observing the procedures was as long as the respective procedure time with feedback taking approximately an additional 25% of this time. In order to achieve acceptable levels of reliability, for training, each trainee must be assessed by at least three judges, each assessing two cases.

This method was much less time consuming and disruptive to consultants work than mini-CEX assessment.

### 360<sup>0</sup> assessment

The median number of 'raters' who assessed each trainee was 16 with a mean of 12.4. The median time (in minutes) to complete the form was 5 with a mean of 5.74. This type of

assessment proved to be highly reliable with as little as 13 'raters'. Different groups differed in their rating scores.

The main issue to arise from the feedback forms was the educational supervisors time needed to collate the data for each SpR on to one form in order to provide feedback.

## Discussion

We have shown that all three methods are both a reliable and feasible way of assessing SpRs performance in a working NHS environment. All the methods were time consuming to an extent and required some degree of additional administrative time, the mini-CEX was the most time consuming method and potentially disruptive to busy out-patient clinics if not planned for accordingly.

It will be important to ensure there is an equal mix of case complexity and setting of the mini-CEX assessment for different trainees. It will be important to keep the mix of 'raters' consistent for 360<sup>0</sup> assessment, as per study protocol.

The qualitative data showed that all three methods were felt to be practical, fair and useful to the trainee. This was also reflected in the free comments made with there being a significant proportion of positive comments about the methods from both consultants and trainees. Many trainees rarely have the opportunity to have a Consultant observe them.

Some participants felt that the use of 360<sup>0</sup> assessment should be confined to poorly performing trainees. This argument is invalidated by the fact that trainees all need to be assessed to pick up those who are poorly performing.

The SpRs found that not only did the methods a positive educational benefit and enjoyed getting positive feedback, often for the first time.

Poorly performing trainees are likely to require more assessments. Future training of Assessors will not only be crucial to the success of these methods being implemented but will also help to further improve their reliability.

Future work being undertaken by the Colleges on performance assessment includes evaluating a Patient Satisfaction Questionnaire, for which a pilot study is currently in process.

These methods provide a positive step in the right direction towards the improvement of SpR training and assessment in the UK. In time the RITA will therefore truly become a Record of In training Assessment, based on results from these methods.

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