Registrar clinical teaching visits

Evaluation of an assessment tool

John Fraser
MBBS, FRACGP, FAFPHM, FACRRM, FACTM, is Director, Hunter New England Area Rural Training Unit, Tamworth, New South Wales. john.fraser@hnehealth.nsw.gov.au

BACKGROUND
External clinical teaching (ECT) visits provide structured feedback to general practice registrars concerning their performance during training. This study sought to evaluate the acceptability to general practice registrars of a quantitative, criterion based, formative assessment tool to be administered during ECT visits.

METHOD
We used a standardised, validated consultation feedback proforma and set the 1–5 rating at the FRACGP exam standard. An evaluation questionnaire was given to the registrar and returned separately.

RESULTS
Twenty-six ECT visits were conducted from September 2005 to March 2006. A total of 21 registrar feedback forms were received (response rate 80.1%). Twenty (95%) registrars agreed the form provided useful feedback and was a useful prompt for discussion with their medical educator. Eighty-six percent felt their ratings were fair.

DISCUSSION
Quantitative formative assessment was well received by the majority of general practice registrars. This tool complements other formative assessment tools used in general practitioner training.

Formative assessment assists in guiding learning.[1–4] Australian general practice training has used external clinical teaching (ECT) visits as a form of formative assessment during training for many years.[5] During these visits, a senior general practitioner observes the consultations of registrars, provides structured feedback and makes recommendations to improve performance.

In 2005, the number of registrars training in north west New South Wales increased; subsequently, so did the number of medical educators. Previously, one educator undertook most ECT visits and could monitor registrar progress using a qualitative proforma[5] that globally described their strengths and weaknesses. At the same time, New England Area Training Services' (NEATS) strategic plan endorsed assessing registrars' baseline skills in order to plan and allocate appropriate resources and monitor progress during training. A more standardised quantitative instrument was proposed in response to these changes.

This article describes the development and implementation of a quantitative, criterion based, formative assessment tool for use in ECT visits with Australian general practice registrars in 2005–2006. It also evaluates the acceptability of this tool to registrars.

Method

Brainstorming was used to develop this project.[6] The NEATS medical education team identified difficulties in comparing qualitative assessments conducted by different educators. The medical education team varied in its level of experience and training in conducting ECT visits. Additionally, the team noted some registrars had limited insight into their present level of performance compared to the standard required for Fellowship of The Royal Australian College of General Practitioners (FRACGP).

A quantitative assessment giving a visual representation of performance could be useful to assist learning. However, some educators felt that if the tool were used summatively to compare registrars with their peers, rather than formatively, it could be counterproductive to improving their performance; the medical educators' training and mentoring role might clash with the implementation of a regulatory assessment.[1,7] Structured feedback needs some frankness and openness between registrar and educator,[2] and this is less likely to occur if the assessment is perceived to risk a penalty.

A trial was developed before widespread adoption of the new tool. All members of the team received training in providing structured feedback using Pendleton rules.[8] Feedback was always given in person. The assessments were confidential and not discussed with

other registrars in the study.

We used a standardised, validated consultation feedback proforma[9,10] which uses a Likert scale to assess components of a consultation including introduction, history, examination, diagnosis, management, close and global rating (*Table 1*). These subsections are further divided into behavioural descriptors. This proforma is recommended as an educational tool by the RACGP.[11]

Pretesting with the medical education team found that the standard of high performance was not clearly defined. We modified the proforma to include more scope for comments. We left space for qualitative comments to capture important aspects of the consultation that might not be mentioned in the criteria (eg. professionalism and patient centredness). We also arbitrarily set the 1–5 rating as being at the FRACGP examination standard rather than comparing peers with peers at the same stage of training. The FRACGP exam standard is set at the level of competence required for independent practice as a GP in Australia.

External clinical teaching visits were conducted as normal by NEATS medical educators.[5] This included an explanation that the ECT visit is formative in nature with the main aim of providing teaching and feedback. External clinical teaching visitors prepared two reports: the standard qualitative report and a new quantitative report. These were discussed with the registrar and their GP supervisor during the visit using Pendleton rules outlining strengths and areas for improvement.[8]

An evaluation questionnaire was distributed to each registrar by the medical educator at the time of their visit (*Table 2*) and was returned separately to the NEATS office to reduce the possibility of response bias. The questionnaire used a 5 point Likert scale to ask registrars whether the tool provided useful feedback on their consultation skills (validity), whether the tools provided useful prompts for discussions with a medical educator (educational impact), and if the form should be used for future visits (acceptability). Registrars were asked if they believed their ratings were fair (fairness) and if they could discuss any disagreements with members of NEATS (medical educator or GP supervisor). Results were condensed to 'agree' or 'not agree' in analysis. Associations were explored using Chi-square test and Fisher's exact tests in the EPIINFO software (version 3.3). This project was considered to be an evaluation of a quality assurance modification to the existing NEATS educational program. As a result, formal ethical approval was not obtained.

Results

Twenty-six ECT visits were conducted from September 2005 to March 2006. A total of 21 registrar feedback forms were received (response rate 80.1%). This response rate was lower than anticipated as we relied on registrars faxing an evaluation form back to the office rather than handing it to their ECT visitor to reduce response bias. Of respondents, two registrars were in basic terms in 2005, and five were in advanced terms. In 2006, five basic, two advanced and seven subsequent term registrars replied.

Twenty (95%) responding registrars agreed the form provided useful feedback and a useful prompt for discussion with their medical educator. Nineteen (90%) stated they would like to use the form with all ECT visits. Eighteen (86%) felt their ratings were fair.

Seventeen of 19 registrars (89%, two responses missing) felt they could discuss disagreements in ratings with a medical educator or GP supervisor.

A subanalysis of registrar performance ratings and evaluation forms was conducted for 2005 and 2006. There were no statistically significant differences in registrar performance across all stages of the consult between the 2 years. Despite this, proportionately more of the 2006 cohort strongly agreed that the form gave them useful points to discuss with their medical educator than the 2005 cohort (Fisher exact, two tailed, p=0.04). Proportionately, more of the 2006 cohort also strongly agreed that they would like to use this form at all their ECT visits than the 2005 cohort (Fisher exact, two tailed, p=0.04). This analysis was undertaken as some of the registrars changed between 2005 and 2006 and we wished to explore trends in terms of our cohort's performance and satisfaction with the revised educational tool.

Discussion

Formative assessment allows learners to receive structured feedback about their present

Table 1. Components of the quantitative instrument (each item scored out of five)

- Introductory phase
  - the introduction to the patient was appropriate
  - the patient was placed at ease
- History taking phase
  - the patient was listened to attentively
  - nonverbal clues were appropriately followed up
  - appropriate question style was used
  - medical jargon was avoided
  - appropriate eye contact was made
  - psychosocial factors were considered
  - an examination history was obtained
- Examination phase
  - the examination was appropriate to the history
- Diagnostic phase
  - appropriate hypotheses were formed and problems defined
  - reasons for coming to the practice were adequately defined
  - other relevant problems were defined
- Management phase
  - appropriate action for each defined problem was taken
  - correct use of time and resources was made
  - explanation to the patient was adequate
  - the patient was appropriately involved in decision making
  - illness prevention/health promotion was provided
- Closing phase
  - the timing of closure was appropriate
  - appropriate follow up arrangements were made
- General comments
  - empathy and understanding was exhibited
  - a good relationship was established
  - the doctor appeared confident and relaxed
- Overall
  - overall rating for performance

Table 2. Registrar questionnaire ('Pilot ECT visit feedback form evaluation: This form is designed to provide information to New England Area Training Services and your responses will be treated as confidential')

	1	2	3	4	5*
Do you believe this form gave you useful feedback regarding your consultation skills?					
Do you believe this form gave you useful discussion prompts for your medical educator?					
Would you like to use this form with all your ECT visits?					
Do you think your received ratings on this form were fair?					
Were you able to discuss any ratings disagreements with your medical educator and supervisor?					

* 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

level of knowledge and skills and reflect on the best means of improving their weaknesses.[1–4] The majority of registrars accepted the use of a quantitative formative assessment tool during their ECT visits. This tool complements other formative assessment tools used in GP training. The findings of this evaluation are consistent with other studies that found that learners value quantitative formative assessment at an undergraduate or postgraduate level in GP training.[3,12,13]

A major limitation of this study is that we were unable to link registrar evaluations of the tool with their quantitative assessments, so we were unable to assess whether registrars who scored low in their quantitative assessment differed in their evaluations of this tool compared with higher rating registrars. We were also unable to compare registrar preference for the quantitative tool compared to the older qualitative instrument, which was used concurrently.

Inter-rater reliability among the medical education team was sought by discussing the tool at medical education meetings. We undertook one training session in which we scored videotaped consultations with the instrument. However, this session occurred toward the end of the pilot and not all medical educators were able to attend.

A limitation of the tool is that while it describes segments of the consultation, it does not provide anchors to describe the criteria for a mark on each scale. Some medical educators were reluctant to use the lower end of scales for this reason; others said that a broader range from 1–7 (rather than 1–5) would make the tool easier to use. The lack of descriptive anchors also limits its suitability as a summative assessment tool. Medical educators mentioned that the time required to administer two assessments was a disadvantage.

The fact that more registrars favoured the quantitative ECT tool in 2006 than in 2005 may reflect that it takes time for medical educators to familiarise themselves with a new tool, and to use it effectively. Alternatively, this may reflect differences in these two small cohorts of registrars.

When a individual registrar's performance is assessed by these tools as being low for the registrar's stage of training, further evidence is collected to triangulate our assessments. This includes additional ECT visits by a different visitor and discussions with GP trainers and practice managers about providing extra support. Collectively, results obtained from using this tool can help detect the strengths and weaknesses of the registrar group. The training calendar can be adjusted to incorporate topics in which the cohort is scoring lower (eg. prevention in general practice).

Work based or 'in training' assessment is topical in the Australian General Practice Education Training Program. This study demonstrates that a quantitative formative assessment was well received by the majority of general practice registrars in a rural area of Australia. More research would be required to develop anchors for each criterion to improve reliability before extending the use of this tool to summative in training assessment.

This tool should be seen as complementing other methods of in training assessment. No single instrument can measure all aspects of performance and there is a need to triangulate observations. The implementation of new assessment processes requires discussion and training among medical education teams. Since the time of this evaluation, NEATS has begun a process of developing an in training assessment portfolio. Part of this portfolio is to further refine our assessment tools to improve our in training assessment processes and reliability among the educational team.

Conflict of interest: none declared.

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afp CORRESPONDENCE email: afp@racgp.org.au