Workplace-based assessment as an educational tool
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Over the last two decades, important global reforms have taken place in medical education at the undergraduate and postgraduate levels. Emphasis on outcome based education led to the development and refinement of performance based assessment instruments and tools in order to assess these outcomes (Friedman & Mennin 1991). All this has been linked to the issue of quality and standards in medical education.

In the UK, the Calman and GMC ‘Tomorrow’s Doctors’ reports were key in the revolutionary change in undergraduate and postgraduate training. The reports clearly stated that ‘supervision and feedback are crucial …. The integration of theoretical teaching with practical work, progressive assessment and feedback to teachers and trainees are essential’ (Calman 1993; General Medical Council 1993).

In the US, the Accreditation Committee of Graduate Medical Educators (ACGME 2000) had a similar effect on residency training programmes through the six general competencies for evaluating residents.

The culture of training of doctors is changing from being opportunistic to structured, planned cycles of activities, blended with service and evaluating the trainee’s performance and progress from one level to the next.

The assessment of what the trainee ‘does’ in real life ‘on-the-job’ is what is now commonly described as workplace-based assessment or ‘in-vivo’ assessment. This is in contrast to ‘in-vitro’ assessment which evaluates what the trainee ‘can do’ in controlled representations of practice such as the OSCE (Rethans 1991).

In the UK, the Royal College of General Practitioners have defined ‘workplace-based assessment’ as: ‘the evaluation of a doctor’s progress over time in their performance in those areas of professional practice best tested in the workplace’ (Swanwick & Chana 2005; Deighan 2007). It should include a process of collection of evidence of performance over the different phases of training.

As it is well known in education ‘assessment drives learning’, workplace-based assessment plays a pivotal role in aligning training and learning with assessment. On the Miller’s pyramid of conceptual assessment of clinical competencies, it represents measurement at the top of the pyramid, ‘does’ in a real work environment and a high degree of authenticity (Miller 1990).

Workplace-based training has suffered at the undergraduate ‘clerkship’ and postgraduates ‘residency training’ levels from lack of observation of the trainee, poor assessment of clinical competencies when encountering real patients and no or poor feedback. In order to increase the effectiveness of workplace-based training, these problems need to be addressed and rectified.

The tasks performed by the trainee should be observed and effective feedback provided; addressing the quality of performance using defined criteria and description of specific behaviour rather than general statements of ‘good or bad’ performance. The headline results of the BEME systematic review on ‘assessment, feedback and physicians’ clinical performance’
indicated that ‘feedback can change physician’s clinical performance when provided systematically over multiple years by an authoritative credit source.’ (Veloski et al. 2006).

The AMEE Guide 31 on ‘Workplace-based assessment as an educational tool’ by Norcini & Burch (2007) gives a comprehensive description of assessment tools commonly used in North America and UK. The authors are well known authorities in the field and have contributed to the development of some of the described instruments e.g. ‘mini-CEX’ (Norcini et al. 2003). The five sections of the guide cover the main literature on the efficacy and prevalence of formative assessment and feedback, common methods of workplace-based assessment, faculty development on how to be an effective supervisor in giving feedback and challenges in implementation.

In reading the Guide, I would like to highlight four points:

1. Workplace-based assessment is equally valuable for the trainee and the trainer. It should be considered as an integral component of an experiential learning cycle which includes a planning phase, observation phase and a reflection phase on performance expressed in a constructive feedback to both the trainee and the trainer leading to a new cycle of planning and improvement of the training programme.

2. The Guide explicitly describes workplace-based assessment as a formative tool with a primary objective of providing feedback based on observation of performance by the supervisors or other stakeholders; ‘multi-source feedback’. Using these methods for summative assessment needs better control of the confounding variables, which are always related to the real workplace environment and are directly linked to the healthcare delivery system, context of practice and variables in the complexity of the patients’ problems encountered.

3. The mini-CEX, which has gained popularity in postgraduate settings, requires 12-14 encounters with real patients in order to achieve a reliability coefficient of 0.8 (Norcini et al. 2003). The main advantage of this method is its authenticity by using real patients. On the other hand, it is important to notice that it assesses a component of the encounter, not its totality. Another method which is described in the literature and not mentioned in the guide is the direct observation clinical encounter examination (DOCE), described by Hamdy et al. (2003) as a summative assessment in the clerkship phase and on a final comprehensive examination. Students encounter four real patients with different health problems in different age groups. Focused history taking, physical examination, reasoning, decision making and communication skills with real patients are observed and assessed using a checklist. The generalizability coefficient reported was 0.84 indicating high reliability. Although this method was not reported in postgraduate residency programmes, it has potential for use as both a formative and summative assessment method. Its main advantage is evaluation of the encounter in its totality and the small number of patients needed in sampling students or trainees’ performance.

4. The Guide emphasises the importance of training faculty on how to use these methods, how to give feedback and after collecting this information, what to do with it. Before introducing these methods in postgraduate or undergraduate medical education programmes, effective training of faculty and supervisors should take place in order to ensure its successful implementation and develop their skills in providing high quality and honest feedback, particularly in the face of poor and under-performers.

Applying these methods in a busy workplace is a difficult task which necessitates the identification of interested clinical educators who have the time or will give the time to supervise the training and create a culture of observation of performance and feedback.
References


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This AMEE Guide Supplement was published in Medical Teacher 2009. 31:59-60.