

## Towards Better Practices in Medical Student Assessment

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Decades ago, when the science of medical education was just beginning to take a formal shape, one of its early doyens, the late Professor George E Miller (1919-98) observed emphatically that “assessment drives students learning”. Assessment not only determines what students will learn, but also determines their learning behaviour and the strategies they adopt.

Thus, the undeniable influence exerted by assessment on learning, and on the overall curriculum, should be exploited strategically. Assessment is not a “necessary evil” in the curriculum; it is an essential and sacred activity that, if properly planned and implemented, has a strong positive steering effect on student learning.

This theme issue contains 4 articles<sup>1-4</sup> on assessment, namely a scholarly review of the often-used term “satisfactory”, a critique of the objective structured clinical examination (OSCE), an original study on the early assessment of professionalism in medical school through peer- and self-evaluation and a study on the comparison between the standards set by students and teachers.

Crebbin<sup>1</sup> reviewed the current literature in an attempt to define the term “satisfactory”. Her review is based on the observation that there are 4 pairs of paradigms, each working in concert with others in a complex fashion to determine the final cut-off point in defining a satisfactory performance. The 4 pairs are: (a) behaviourist (objective specific) versus holistic (integrated) approach in competency, (b) scientific-measurement (emphasis on high degree of objectivity and reproducibility) versus judgement-based (focusing on open-endedness and contextual variability) approach, (c) the hard knowledge (biochemistry, anatomy) versus soft-knowledge (ethics, communication) paradigm, and (d) assessment in simulation (usually checklist based) versus in real-life situations (requires integration of expert knowledge, complex decision making, and dexterity).

For simplicity, we may want to view the 2 paradigms

within each pair at the opposing ends of a continuum. The important question is whether focusing on one end only is likely to compromise the gains from the other end. For example, if we adopt the behaviourist approach, with emphasis on specific observable behaviour to promote objectivity and reproducibility, are we going to jeopardise the holistic approach in medical education that we are keen to promote? The challenge for us, therefore, is to make a value judgment and choose the appropriate “centredness” from the continuum. This critical decision making would be much better carried out with professional expertise in assessment, and a thorough knowledge of the content and learners.

The second review by Barman<sup>2</sup> discusses the objective structured clinical examination (OSCE). It has been almost 30 years since Harden first described and used the OSCE for clinical assessment. Since then there have been several hundred articles published on various aspects of OSCE. This timely review summarises some of the key elements of OSCE, and reaffirms that vigorous investigation should continue.

The issue of differing expectations in assessment and standard setting is highlighted by Senanayake and Mettananda.<sup>3</sup> They compared the standards in examination set by the students and teachers. Interestingly, the standard set by students for themselves is higher than the standard set by teachers for the same examination. It again re-emphasises that standard setting in examination is a complex process and a scientific evidence-based approach is required.

Bryan et al<sup>4</sup> reiterate that we should not leave assessment of professionalism towards the end of medical school years when it might be too late to inculcate desirable behaviour and to detect early signs of problem behaviour. Their experience with assessment of professionalism through self- and peer-assessment in the early years of medical schools is promising and likely to be reproducible with little effort.

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We hope that these articles will promote interest and discussion about the assessment of undergraduate medical students. Assessment is a moral and ethical activity that has to be undertaken with due professionalism and seriousness. It is not the marks that we give the students that matter, but our choice of assessment methods, the implementation and monitoring of the chosen methods, and, above all, the effort we put into the process that, together, truly determines the success of our system of medical education.

#### REFERENCES

1. Crebbin W. What do you mean by “satisfactory”? *Ann Acad Med Singapore* 2005;34:473-7.
  2. Barman A. Critiques on the objective structured clinical examination. *Ann Acad Med Singapore* 2005;34:478-82.
  3. Senanayake MP, Mettananda DSG. Standards medical students set for themselves when preparing for the final MBBS examination. *Ann Acad Med Singapore* 2005;34:483-5.
  4. Bryan RE, Krych AJ, Carmichael SW, Viggiano TR, Pawlina W. Assessing professionalism in early medical education: experience with peer and self-evaluation in the gross anatomy course. *Ann Acad Med Singapore* 2005;34:486-91.
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