

## Addressing Assessment in Libyan Medical Education

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**Abstract:** Assessment is a powerful driver of student learning: it gives a message to learners about what they should be learning, what the learning organisation believes to be important, and how they should go about learning. Assessment tools allow measurement of student achievement and thereby give teachers insight into their students' learning, and enable teachers to make systematic judgements about progress and achievement. It is vital then that assessment tools drive students to learn the right things as well as measure student learning appropriately. Any attempts to reform curricula and teaching methods must consider the role of assessment in the learning process .

Libyan doctors and medical students have been calling for changes to teaching and assessment methods at undergraduate and postgraduate levels. A team from the Academic Centre for Medical Education at University College, London have been running workshops in conjunction with the Libyan Board of Medical Specialties since 2006 to discuss strategic aims of assessment in medical education in Libya for the 21st century and to deliver an assessment skills course to Libyan educators. This article outlines the course and the outcomes of preliminary discussions between academics from the UK, participants in the assessment courses and representatives from the Libyan Board of Medical Specialties. As a result of these discussions it was agreed by all that Libyan Medical School assessment methods need updating and, despite significant challenges, changes in assessment must be made as soon as possible. There is a real need for support in both addressing these changes and for practical training for assessors in contemporary assessment methods.

Key words: *Education, Medical, Educational measurement, Libya*

*'Examinations are formidable even to the best prepared, for the greatest fool may ask more than the wisest man can answer'*

Charles Caleb Colton, 1780 - 1832

### Introduction

#### Current context

In both the UK and the US, medical education, including assessment, has been transformed over the last 30 years, driven by changes to the medical environment in which graduates will work. There has been a shift away from the traditional apprenticeship model of learning in medicine: the student is no longer considered an empty vessel to be filled by those who have obtained the desired competencies [1] instead it is now widely recognised that medical education is preparation for the multitude of demands of professional practice [2]. Traditionally, clinical competence has been assessed by measuring students' ability to recall and apply knowledge. This is no longer considered a sufficient guide to ability and subsequent performance. Instead before they embark on careers as medical professionals, students must demonstrate their competence in terms of professional attitudes and skills as well as knowledge [2]. This means medical schools need to have the tools and understanding to systematically, appropriately and reliably assess the competence of medical students.

Assessment is a term that refers to a spectrum of activities that take place in the learning environment to measure the learning that has taken place. In its broadest sense it can be considered as 'about getting to know our students and the quality of their learning' [3]. It can be formal, informal, formative or summative, objective or subjective, learning can be measured against peer or against a pre defined criteria and conducted by the learner, his peer or the teacher [4]. Every assessment that is provided gives a clear message to the learner about what they should learn and how they should go about that

learning. Learners can, to some extent, escape from the effects of poor teaching, by creating their own learning strategies and opportunities; however, if they wish to graduate and practice, they cannot escape the effects of inadequate assessment [5]. Students will often learn only what is going to be assessed. It is a powerful driver of student learning and so it is important to get it right (see supplementary material for the qualities of a "good assessment").

Libyan doctors and medical students are calling for changes to teaching and assessment methods at both undergraduate and postgraduate levels [6,7,8]. In December 2006 staff from University College London's Academic Centre for Medical Education (ACME) were invited by the Libyan Board of Medical Specialties (LBMS) in Tripoli to facilitate the first of a series of one-day workshops on assessment and to initiate the discussions about developing a contemporary assessment strategy.

This article outlines the course and the outcomes of preliminary discussions between academics from the UK, participants in the assessment courses and representatives from the Libyan Board of Medical Specialties regarding the future of assessment in Libyan medical education.

#### Assessment course aims and objectives

The one day course aimed to increase participants' knowledge of up-to-date assessment theory and methods and to promote discussion about the future for assessment in Libyan medical education.

The objectives of the course were that by the end of the training day participants would:

- Have explored the definition and purpose of assessment
- Be familiar with key concepts in assessment
- Have a framework for selecting and using appropriate assessments in their own setting
- Have considered their role as an assessor

- Be familiar with the Objective Structured Clinical Examination (OSCE) assessment method
- Have practiced three contemporary assessment techniques

#### Course content and format of the day

The day consisted of a morning of interactive sessions facilitated by ACME academics and practical workshops to develop skills in the afternoon, comprising the following elements:

- An overview of assessment
- Selecting appropriate assessments
- Appropriate assessor behaviour
- An introduction to the OSCE
- A Multiple Choice Questions (MCQ) writing workshop. Participants practiced writing useful, reliable and valid written examination questions
- A Mock OSCE workshop: participants played roles of students and examiners on a 4 station OSCE. Libyan medical students and junior doctors acted as simulated patients.

The facilitated sessions and practical workshops were well evaluated by participants.

The day was rounded off with discussions between UK and Libyan academics and medical educators on how assessment should be taken forward in Libyan medical education. The group discussed:

- How assessment should change to fit in with contemporary medical education in Libya
- What assessment 'toolkit' might work
- How assessors and candidates should be prepared for assessments

#### Result of the discussion regarding the future of undergraduate assessment in Libya

The discussion for taking assessment forward produced some interesting ideas. The Deans of the Libyan medical schools have agreed that there is a need for change in assessment practices. The LMBS endorsed this need for change and a lively discussion produced agreement on the following principles:

- Libya needs to update assessment methods
- Planning is key to successful developments
- Those in positions of responsibility for assessment must commit to the process of change
- OSCEs should be used throughout medical education (undergraduate, postgraduate and education of professions allied to medicine)
- Training and support to write and validate MCQs are required
- A single comprehensive question bank should be created and used by all medical schools. For each MCQ, a standard should be set when it is entered into the bank and stored in the question bank as well, in order to identify hard and easy questions
- Assessors should be trained in assessment behaviors, particularly to help them behave in an objective and standardized manner. Crucially they need to understand the curriculum being tested and need to be able to give effective feedback.
- Candidates should be given opportunities to learn about and practice assessments so that they understand

assessments that they are expected to take, and have access to learning tools and resources to prepare them

- Assessments must be fair
- Resources are necessary to implement change on a wide scale
- All key assessors must attend the ACME assessment course
- Despite the challenges to be faced, changes in assessment must be made as soon as possible

It was agreed that concrete steps need to be taken and that the Faculty of Libyan medical schools need to identify:

- the time frame for change and key personnel who will take a lead in the change process
- resources and requirements to implement these changes
- a time frame for piloting the OSCE at one Medical School

#### Conclusion

Medical education is changing the world over and it is essential for Libyan medical educators to keep abreast of local and international demands that are made of today's healthcare providers. Medical educators have a responsibility to train professionals who are able to provide excellent clinical care. Today this means they need to understand and integrate clinical knowledge, skills and attitudes in order to be able to diagnose effectively and perform safely in the context of developing good relationships with patients and colleagues. Assessment is an integral part of this process.

Participants on this pilot course overwhelmingly agreed that there was much to be done and that change needed to happen. Participants debated how to take things forward and agreed that Libya is ready to make changes to assessment. This will require tools, equipment, time to change, training for all involved and, above all, it needs commitment to change.

#### References

1. Dall'Alba, G., & Sandberg, J. (1996). Educating for Competence in Professional Practice. *Instructional Science*, 24, 411-437
2. General Medical Council (2003) *Tomorrow's Doctors: Recommendations on Undergraduate Medical Education*. London, GMC
3. Rowntree, D. (1977) *Assessing Students*. London: Harper & Row
4. Schuwirth L and van der Vleuten C. How to design a useful test. *ASME Understanding Medical Education Series 2006/2007*
5. Boud, D. (1995a). Assessment and learning: contradictory or complementary? In P. Knight (Ed.) *Assessment for Learning in Higher Education*. London: Kogan Page, 35-48
6. Benamer HTS. The Libyan medical profession needs a regulatory body. *Libyan J Med. AOP: 070113; 2007; 2(1)*.
7. Ali AA, Bakoush O. 50% failure rate in final year medical exams – whose fault is it? *Libyan J Med. AOP: 070406; 2007*.
8. Daw MA & Elkhammas. *Libyan Medical Education: Time to move forward* *Libyan J Med. AOP 071208, 2008*.

## Supplementary Material

### Overview of what makes a good assessment

#### A good assessment;

- **has a clear purpose**

Determining the purpose of an assessment influences all other decisions so it is important to consider this at the first opportunity. Assessors need to be clear whether any given assessment is summative or formative. If the assessment is designed to determine whether the student may progress to the next stage of training or qualify to practice medicine (pass or fail test) this is a summative assessment or assessment of learning. If the assessment is designed to provide the student with feedback on performance to enable them to improve it is a formative assessment or assessment for learning. Students whenever possible need to know what they have done well and what areas still need improvement. If appropriate, constructive feedback to students will help to provide insight into their learning.

- **is fit for purpose**

It is easy to fall into the trap of producing assessments that do not fulfil their intended function or are inappropriate or unsafe measures of learning. When planning assessment a range of questions need to be considered: What should be tested - what content and what competencies? To what extent do those competencies need to be tested?

How accurate do results need to be – what are the stakes or consequences of the result? Is more than one type of assessment needed to accurately measure the skill or competence? For a summative assessment - what is the pass mark or acceptable level of performance – and how will this be set?

- **is related to the learning that has taken place**

In terms of content: the assessment should only cover what has been taught or areas students have been advised to address in self directed learning. The assessment also needs to be appropriate for the outcome being measured. A written test can be used to measure knowledge but not clinical skills or attitudes, which need to be demonstrated, for example, in an OSCE, a short case or a long case

- **tests what should be assessed rather than what is easy to assess**

Some things are easier to test than others and some examiners are greater advocates for their specialist interest than others; thus a common pitfall in setting assessments is to test what is easy to test or to focus on specialist or 'fine detail' areas rather than more general aspects of medical knowledge skills and attitudes. This process requires a group of clear thinking individuals to negotiate content bearing in mind the natural protectionism that we all feel for our specialist areas and the tendency to test what is easy to test.

- **has considered issues of feasibility, validity, reliability**

These are key concepts in assessment design and selection and their relative importance depends on both the purpose and the 'stakes' of the assessment.

Validity is the extent to which the assessment measures the intended content area; this is the priority in any assessment. (A close link between a stated objective of the course and the assessment questions used in an assessment aids this sort of validity).

Reliability is a purely statistical measurement that refers to the reproducibility of the results of an assessment. Highly reliable tests have features that mean if a student were to take the same test on two occasions would they get the same results or if the test was given to students of equal ability would they all get the same result. The higher the reliability the more confidence you can have in the result being a true indicator of the ability of the student.

Feasibility relates to the practical, logistical and financial considerations of designing, organising and rolling out of an assessment

- **is clearly communicated**

Students, teachers and assessors need to understand what is being assessed and these needs to be communicated clearly. Students need access to sample tests and if possible examples of good and inadequate answers. In practical tests candidates need to be piloted to ensure that the questions are understandable and unambiguous. Teachers need to know about assessments to tailor their teaching and assessors need to know what they are testing and how they should behave in the assessment.

In essence, what makes a good assessment will depend on the purpose of the assessment and the setting as well as the learning objectives.

### Suggested further reading

1. Brown, Race and Smith (2005) 500 Tips on Assessment. Oxford, Routledge Falmer.
2. Habeshaw S, Gibbs G, Habeshaw T (1993) 53 Interesting Ways to Assess Your Students. Technical & Educational Services Ltd.
3. Gibbs G (2004) Conditions under which assessment support students learning Learning and teaching in higher education, v. 1 no. 1, pp. 3-31
4. Schuwirth L and van der Vleuten C. How to design a useful test. ASME Understanding Medical Education Series 2006/2007
5. Boursicot K, Burdick B and Roberts T. Structured examinations of clinical competence. ASME Understanding Medical Education Series 2006/2007.