Available online at www.sciencedirect.com
ScienceDirect
International Journal of Osteopathic Medicine 11 (2008) 137–141
www.elsevier.com/locate/ijosm

Commentary

Clinical competence examination – Improvement of validity and reliability

Paula Fletcher*

European School of Osteopathy, Boxley House, The Street, Boxley, Maidstone, Kent ME14 3DZ, United Kingdom

Received 1 August 2008; accepted 26 August 2008

Abstract

The traditional approach to final clinical competence assessment has many shortcomings in terms of validity and reliability. Strategies for improving this traditional approach are presented, which include a degree of standardisation, coupled with increased variety. The advocacy of standardised or simulated patients by some researchers is discussed with the incorporation of patient feedback into the competence assessment mix. The relevance of examiner bias and the negative effects of being observed on candidate performance are considered, together with the significance of examiner training and the manner of their deployment. Consideration is given to alternative assessment modes with a concluding argument in favour of continuous assessment in place of the final examination.
© 2008 Elsevier Ltd. All rights reserved.

Keywords: Clinical competence examination; Validity; Reliability; Measurement; Osteopathic medicine; Education

1. Introduction

For the last two decades, the UK providers of osteopathic training and their professional, accrediting body, have relied predominantly upon the 'long case' to provide the final proof of clinical competence. It has been assumed that this assessment has all of the five required attributes of any assessment process: reliability, validity, acceptability, feasibility, and educational impact (see Table 1). This commentary aims to question this reliance and to encourage the move to something more standardised, with greater weight being given to continuous assessment.

Before proceeding to consider the long case in more depth, it would be useful to define competence. In their paper looking at competence and performance in general practitioners, Rethans et al.[2] differentiate between competence and performance. Competence is said to consist of knowledge, skills and attitude. They conclude that assessment of competence, therefore, requires several measurement instruments, each representing different aspects of competence.

Southgate[3] defines clinical competence as ''in part the ability, in part the will, to select and perform consistently relevant clinical tasks in the context of the social environment in order to resolve health problems of individuals and groups in an efficient, effective, economic and human manner''. In a summarised form, this is not too dissimilar to the Standard 2000,[4] that purports to provide the components of clinical competence assessment used by osteopathic training providers in the UK.

2. The long case

The long case has been outlined by Godfrey and Heylings[5] as a method of assessment in medicine used

* Tel.: +44 (0) 1622 671558; fax: +44 (0) 1622 662165.
E-mail address: paulafletcher@eso.ac.uk

1746-0689/$ - see front matter © 2008 Elsevier Ltd. All rights reserved.
doi:10.1016/j.ijosm.2008.08.028

Table 1
Five required attributes of an assessment process (adapted from McKinley et al.[1])

Reliability	An estimate of score variation due to performance differences between subjects and includes agreement between examiners assessing the same performance. The reliability of a regulatory assessment should generally be a minimum of 0.8
Validity	The extent to which an assessment is a measure of what should be measured. Validity concerns both the instrument and assessment process and the challenge with which the candidate is tested
Acceptability	The extent to which the assessment process is acceptable to the stakeholders. In competence tests of an osteopathic student, the stakeholders are the student, the examiners/assessors, the patients/simulators, the profession, future patients of the osteopath and society
Feasibility	The extent to which the assessment can be delivered to all those who require it within real costs of staff and time constraints
Educational Impact	The extent to which the assessment can assist the osteopathic student to improve performance experientially and by means of feedback on specific strengths and weaknesses, plus prioritised and specific improvement strategies

virtually everywhere from undergraduate to postgraduate training. It has the following instantly recognisable features:

- The candidate interacts with a patient (new or returning);
- The candidate is then interviewed by an examiner for perhaps 15–20 min when the patient history is presented plus examination findings; differential diagnosis; and management of the case.
- The examiner may then see some of the subsequent treatment;
- Ideally a moderator, or second examiner may see the candidate; and
- There follows a moderation meeting when examiners confer on an appropriate grade for the candidate.

As Godfrey and Heylings state, ‘‘the long case is generally regarded at undergraduate level as more indicative of potential success or failure as a clinician than almost any other part of the final examinations’’. The rationale for this is that the ‘‘long case’’ apparently offers face validity (i.e. appears to be measuring what it purports to). However, the long case has poor content validity (i.e. unable to differentiate between groups with known differences).[5] This can be improved by increasing the number of cases per candidate.[5] However, again according to Godfrey et al., the exam performance can be adversely affected by a range of other factors, such as:

- Patient variability (possibly even dishonesty);
- Examiner variability (bias). Three not uncommon sources of bias are:
  a) the dove/hawk dimension, where one examiner is more lenient than another[6];
  b) the tendency for one examiner to ‘‘spread’’ their marks more widely than another examiner[7];
  c) The ‘‘halo effect’’, or the tendency to rate a candidate high (or low) in all areas being evaluated in a session if the candidate scores high (or low) in one area.
- Serendipity (some candidates may have seen similar cases before, whilst others may not).
- It may well be the situation that the activities of a candidate in a long case may not be observed by the examiner(s). In consequence many of the skills said to be examined may not be. They could include such things as:
  a) explanations to patients;
  b) patient examination;
  c) technical skills.

There is also evidence that direct observation can have adverse effects upon the observed.[8]

3. The candidate

It is important at this point to consider the candidate. Certainly the prospect of a ‘‘long case’’ assessment concentrates the minds of the students and can be an example of examination directing learning.[5] Nevertheless, many students tend to try to cover all possible clinical possibilities rather than concentrating on basic skills such as taking the case history and carrying out the physical examination. Many of the students claim that they do not really understand what is expected of them.[5] Clear guidance is therefore essential.

Neufeld and Norman,[7] question the issue of what is being measured by oral examinations. To what extent is true ability being measured in oral examinations and to what extent are measurements contaminated by unsystematic judgements about other characteristics of students? They refer to issues that are suitable for oral assessment: breadth as well as depth; clinical judgement; ability to think on their feet; interpersonal skills.

Clearly all of these features could be perceived as mitigating against the validity and reliability of the long case as a means of assessing clinical competence. How can this situation be improved?

4. Clinical competence examination and how to improve its validity and reliability

Godfrey and Heylings,[5] propose various remedies for improving the validity and reliability of the long case:

Download English Version:

https://daneshyari.com/en/article/2618220

Download Persian Version:

https://daneshyari.com/article/2618220

Daneshyari.com