

Trainees' forum

Multiple choice examinations and the MRCPsych: "Between guesswork and certainty in psychiatry"

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More than two decades ago, Aubrey Lewis delivered a visionary Bradshaw lecture to the Royal College of Physicians (Lewis, 1958). The address centred upon the place of scientific method as applied to the art of psychiatry. In his concluding remarks, Lewis emphasised the ardours and perils of guessing. Nowhere is the temptation to guess more clearly illustrated than in multiple choice examinations.

Multiple choice examinations

The ability to pass multiple choice examinations has become an essential ingredient of a junior doctor's repertoire. The new MRCPsych examinations involve three such papers, one in the first part and two in the second. The College, in its 'Advice to Examination Candidates' makes the point that the examinations cannot be passed without success in the clinical section. This is, of course, quite proper, but it is possible to perform glowingly well in the clinical and fail on a borderline multiple choice paper. Multiple choice examinations instil dread into a significant proportion of candidates. Most seem to see the negative marking method as particularly hazardous.

What does it take to pass?

The Royal College of General Practitioners is most open about the pass mark for its Membership Examination, drawing the line at 50% to be achieved over one MCQ, a short answer paper, an essay, and two vivas. The Royal College of Psychiatrists seems to be tacit about its pass marks although speculation is rife. At revision courses one finds many intense white-faced young men and women, heads down and gnawing fingernails, muttering phrases about only scoring 80%; needing to improve by another 5% or 10%; having to answer 85% to 90% of questions correctly to be sure of passing. This can, of course, be taken to represent a good deal of legend with an unhealthy dose of revision course pressure and pre-

examination nerves. Course conveners are diplomatically vague, but when pressed, often suggest that marks in the high 50s or low 60s are probably satisfactory. A popular suggestion is that the pass mark is floating and influenced by candidates' performance. Also that there is a bimodal distribution of marks with the pass mark set half way up the second peak. Given that the pass mark lies in the range 55%–65%, is there a method of tackling the examinations which is likely to improve a candidate's chance of success?

Examination techniques

People sitting MCQs seem to separate into three main groups: those who rigidly answer only those questions to which they know the answer; those who try to complete the whole paper; and finally those who answer all the questions they know to be right and then work through again, making educated guesses at the remainder. There is of course no substitute for knowledge. MCQs with negative marking are especially taxing because there is a particular need to be aware of the things that you know. The College provides a syllabus for the examinations and it is imperative that this is studied carefully. The cautious group may run the risk of performing poorly unless they are very confident of knowing a lot of the answers. At the other extreme, some candidates declare, "I answer everything. If I haven't heard of it, it must be false". The logic is that even a seemingly wild guess must be based on some principle or other, so it is worth trying all the questions. Ultimately the question must be answered: "How good a guesser are you"?

Most books of multiple choice questions contain sound general advice about examination technique (Glew, 1981; Grant *et al.*, 1986; Levi, 1987). Despite this, it is often difficult to know just how far to pursue a line of educated guesswork. The method described here is directed to those people who occupy the middle ground and feel a need to rationalise their

guessing. With a little care and application, the technique can tailor the approach to a paper so as to maximise the likelihood of success.

Scientific method

Up to the stage of university entrance, the British educational system has in the past relied on multiple choice examinations where negative marking is not used. It is thus advantageous to answer all questions, going through a paper over and over again, answering progressively harder questions. The method described here has evolved from this approach.

This is a form of audit of personal performance. Take a test paper. Consider where you feel the pass mark is likely to be, for example, 55%. Answer only the questions of which you are absolutely sure. If the number of questions answered is 55% or more, stop. Repeat the paper, answering all the questions. If you now mark the paper, the results will indicate how well you have done, answering the above proportions of questions.

The above procedure can be repeated, answering various proportions, e.g. 70%, 80% and 90%. There is an obvious problem in deciding which questions to answer and which to omit. Make notes on the examination paper. If you answer all the questions you are positive about first, marking those you are fairly certain of, then you can work over the paper again.

Repeating this procedure with a number of papers will allow you to plot a graph of:

Percentage Answered against Mark Scored.

This should quickly allow you to determine the percentage of questions to answer in order to achieve your best scoring chance. Obviously this will differ from person to person, but a realistic result might be 80% of questions to be answered. Armed with this information, you could reasonably approach an examination by going through the paper until your

target percentage of questions has been answered, stopping and leaving.

Conclusions

Examinations are serious affairs and deserve careful strategic planning to try and eliminate bad fortune. Confidence is paramount, and simple strategies build confidence. There are two caveats. Firstly if your practice scoring is uniformly low, then sadly it is probable that more knowledge is required. Secondly, if you go through the examination paper for the first time, answering all you are positive of and you confidently reach your target quota, you should of course complete the remaining answers, but should not run through the paper again.

Finally, this approach may not be to everyone's taste. It seems to have test-retest reliability but there are obviously problems in demonstrating inter-rater reliability. As with statistical analyses, there may be assumptions in generalising from a small sample. Nevertheless, the above concept may be a valuable option for those who are prepared to experiment and open to logical argument.

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MCQs: a suggested study technique

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The MCQ has now become firmly established as an integral part of post-graduate psychiatric examinations. In my experience a number of trainees have particular difficulty with MCQ tests such that they find them threatening, and in some cases a repeated stumbling block to the advancement of their careers.

A minority within this group may consider the MCQ test to lie in the realm of the arcane and mysterious and find themselves subject to repeated worry and frustration. While advice on techniques for answering is plentiful (sample textbooks and manuals on examination technique) I am not aware that there has